TWO-YEAR DEVELOPMENT PLAN

From Stabilisation to Development

A PLAN FOR THE PERIOD MID-1968 TO MID-1970

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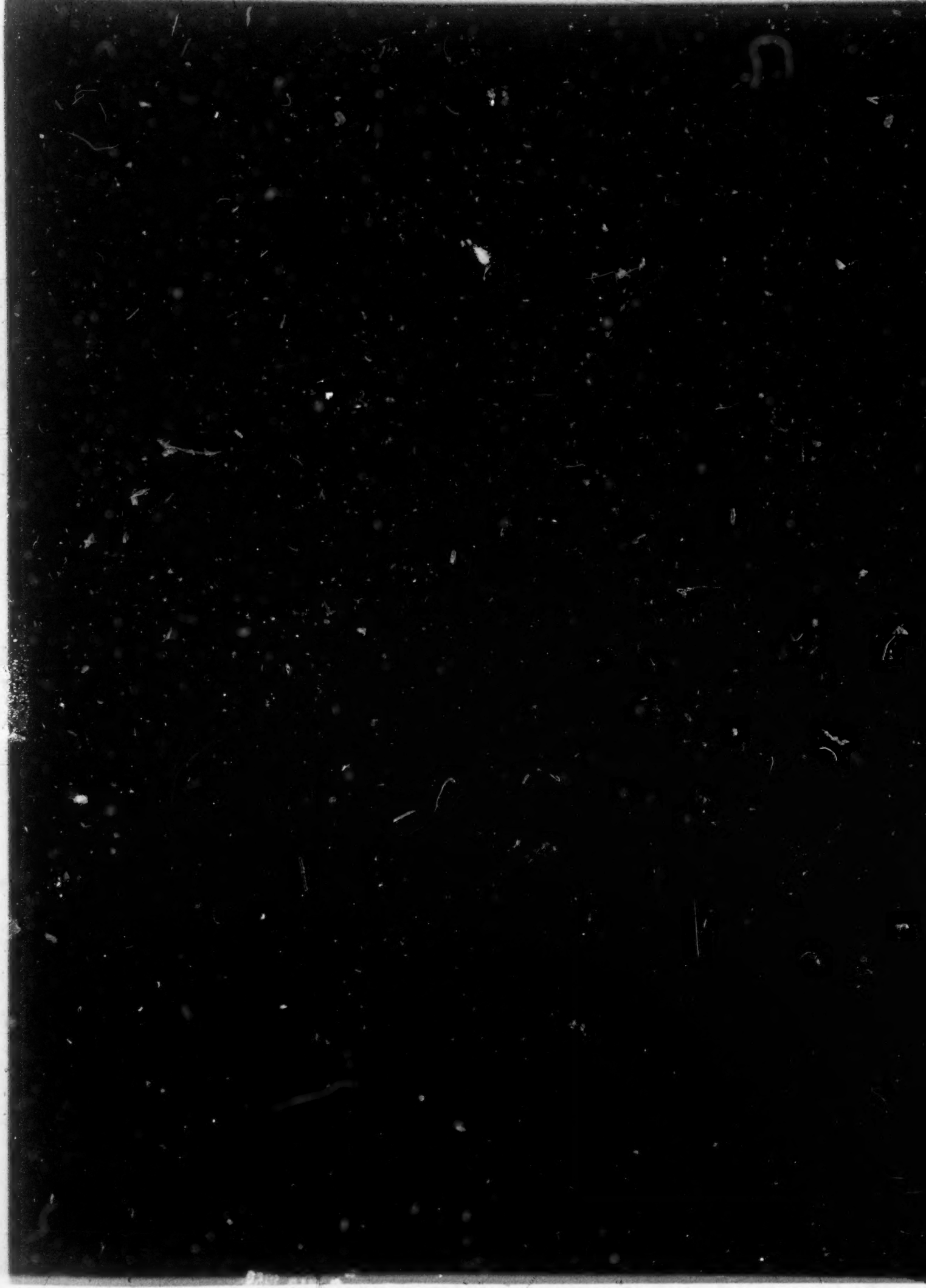

FOREWORD

The Two-Year Development Plan marks a new era in the economic administration of this country by the National Liberation Council. Since February, 1966, the management of the Ghana economy has been done without the guidance of a formal development plan. As the country now moves from a period of stabilisation into one of development, it is imperative that a national planning framework should be prepared laying down the policies for an efficient and disciplined channelling of the available resources which will ensure accelerated growth.

The Plan, which represents the country's fresh attempt at economic development and growth covers the period mid-1968 to mid-1970 and is conceived as a forerunner of a more comprehensive development plan. The general purpose of the Plan is to stimulate economic, social, and cultural progress which would provide higher standards of living to Ghanaians in a manner compatible with human dignity based on equity and full employment.

The significant feature of this Plan is that it is a product of many Ghanaian hands and brains, operating through the new planning machinery established by Government, in the form of Planning Units in the Ministries and Planning Committees in the Regions. The Central Planning Agency, represented by the Ministry of Economic Affairs, provided the guidance, co-ordination, and liaison in this exercise. The Ministry of Economic Affairs itself benefited from the assistance of an international team of economists recruited through the Harvard Advisory Service with funds granted by the Ford Foundation.

The Ghana economy is essentially a private enterprise economy. The Government must nevertheless, assume considerable responsibility for the results of the economic process. While, therefore, it is the Government's policy to rely on private enterprise where this will lead to the desired objectives, the Government will not hesitate to use general policy measures, including direct intervention, where necessary in the public interest.

Responsibility for the successful implementation of the Plan falls in the first place on the public services. The various branches of the public service must conduct their operations of regulation, guidance and control with efficiency and openness. The Government also recognises that the objectives of the Plan cannot be attained without the active participation of a dynamic private sector. Within the objectives of the Plan and through the Government's annual budgets, the right environment will be created to enable the private sector to make its full contribution.

The Government, for its part, believes that the method adopted in the preparation of the Plan, whereby so many citizens have been involved in the formulation of what each sector can contribute should, itself,

facilitate Plan implementation. In this way the gap between "paper planning" and actual implementation which has been the downfall of so many plans will be closed.

The Government urges the whole nation to co-operate fully in the implementation of the Plan.

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Chairman,
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I. GENERAL

The economy of Ghana has now been set on the road to recovery. After a series of crises, inflation has been brought under control, the balance of foreign trade has improved substantially and industrial production is recovering. Many wasteful expenditures have been eliminated. Major inefficiencies have been eradicated and there is a greater social unity of purpose to lay the foundations for a return to civilian rule. The period of stabilisation has thus been successful and provides a firm basis from which development can be resumed.

The problems that remain are nevertheless of the utmost gravity. The legacy of foreign debt incurred in earlier years still weighs heavily on the country. The burden of loss-making state enterprises although reduced cannot be eliminated in the short period. Unemployment remains a very serious problem to which the Government will continue to address its urgent attention.

In view of the problems which still remain, it would be unrealistic to expect that the period of stabilisation can be changed overnight into one of rapid development. Inevitably there must be a period of transition during which certain of the measures necessary to achieve stabilisation are gradually relaxed. Otherwise the gains made in the stabilisation period would be endangered.

For a period of transition a short-term plan is required. It is nevertheless essential that long-term objectives are kept clearly in mind since action taken during the transition period must inevitably influence the course of development thereafter.

II. OBJECTIVES AND STRATEGY

The short-term perspectives of this plan are conditioned by the situation as it exists today. This is characterized by an acute shortage of foreign exchange; a huge inherited foreign debt; a downward trend of domestic savings; a large surplus of productive capacity in industry; considerable unemployment and an agriculture which has in general been stagnant for many years.

In consequence Ghana's efforts have to be directed in the short term to the achievement of economic growth, primarily by eliminating bottlenecks which prevent the full utilisation of available resources. Only when this is achieved will the road be opened for an extensive programme of new ventures. Thus, the short-term objectives are:

(1) to provide the foundations for self-generating growth;

(2) to achieve growth over the short period with an improved efficiency in the use of imports and investment resources likely to be available;

(3) to reduce the high level of unemployment and check the rate of migration to the cities;

(4) to maintain internal financial equilibrium avoiding on the one hand an inflationary rise in prices and on the other the creation of additional idle capacities;

(5) to maintain external financial equilibrium in such a way that the balance of payments shows no larger deficit after accounting for debt service than can be covered by foreign aid and long-term loans.

The main long-term development objectives can be briefly noted. Ghana should aim at an improved rate of growth of national income through a sustained high rate of development well balanced between the sectors. At the same time it should seek to achieve a more equitable distribution of income between regions and between persons while ensuring that the social change attendant upon economic development does not rob the Ghanaian society of some of its highly valued traditions. The long-term objectives also include the development of the rural areas and the diversification of the export base of the economy, and the reduction of dependence on foreign aid.

The Strategy.—The strategy to be adopted to attain the short-term objectives is limited by serious constraints to growth. Many of these constraints are of a general nature and exist in most developing countries. Some however are of a special nature and typical of the present structure of the Ghanaian economy.

Apart from the general constraints common to developing countries such as scarcity of capital, low saving rate, high rate of population growth, high incidence of illiteracy and shortage of highly skilled labour, high level of unemployment and underemployment, weak organisational

capacities and large differences in personal and regional incomes, Ghana has special constraints which are:

— the size of the foreign indebtedness of the country;

— the extreme dependence of the economy on export income from the sale of one commodity—cocoa—the price of which is subject to wide variation;

— the degree of under-utilisation and redundancy of some investments; and

— the overcentralisation of the decision-making process.

The major objectives and constraints lead to a definition of the broad lines of the strategy to be followed by the Government for the next few years. At the outset it is necessary to insist that it is not possible to define a balance between objectives that should remain constant. The relative weights to be attached to the various objectives must alter with the changing economic conditions. Conceptually and numerically it is difficult to define the objectives rigorously. They are, with the exception of the external equilibrium, flexible; and the desired level and balance between objectives can only be approached as far as conditions permit.

The major instruments of policy for carrying out the strategy are the following:—

— *The Budget*.—Level and composition of revenues and expenditure.

In practice, important limits exist on the speed with which these can be changed.

— *Import Policy*.—Level and composition.—The upper level is set by foreign exchange availabilities; in practice the margin of freedom to change the composition is limited by considerations of administrative capacities and smuggling.

— *Wage and Price Policy*.—In many countries this has not proved to be a very effective instrument unless other instruments have created conditions conducive to its success.

— *Direct Intervention*.—There also exists the possiblity of more direct intervention in the economy through the promotion of specific projects. including joint ventures with the private sector, and prohibition and licensing regulations such as building permits.

The general strategy the Government will adopt is to use these instruments to achieve the following aims:—

(i) Agriculture occupies a strategic role as a potential source of additional exports, food and industrial raw materials, employment, and as a means of reducing disparities of income and of slowing down the drift to the towns. Accordingly, the highest priority will be given to promotion of agriculture consistent with sound economic operation.

(ii) Within the industrial sector, priority will be given to the utilisation of existing capacity where an economic return can

be assured, and to the elimination of loss-making operations for which no reasonable prospect exists of a return exceeding costs.

(iii) Small- and medium-scale industries will be stimulated in order to disperse industrial activities and create opportunities for Ghanaians to acquire managerial experience.

(iv) In the sector of infrastructure—roads, railways, etc.—provision of fully adequate maintenance will be given priority in order to safeguard the capital assets of the country, thus ensuring that they can contribute fully to efficient production and distribution. Emphasis will be placed on expanding the network of feeder roads as an aid to agricultural production and processing. The increase in maintenance work and the expansion of the feeder road network will be labour intensive and should contribute substantially to the alleviation of unemployment.

(v) Import licensing will be further improved to ensure that the objectives of the plan are met.

(vi) Trade credits will be reduced where a reduction is highly advantageous in lowering the cost of imports.

(vii) Special *ad hoc* working groups will be set up to overcome specific bottlenecks in production and transportation.

(viii) The preparation of development projects will be made more thorough and the decision-making process will be improved.

(ix) The Government machinery to identify and promote economic export possibilities will be strengthened.

(x) The increments of national income becoming available will be directed through the policy instruments towards (*a*) provision for essential complementary domestic investment, and retiring short-term foreign debts, (*b*) a modest continuing increase in the standards of living comprising both private consumption and social services.

(xi) Taxation policy will be directed to ensuring an adequate level of public savings, to the stimulation of a more effective use of national resources directed to expansion of production and with due consideration to income distribution.

III. RESOURCES AND EXPENDITURES

While Ghana possessed sizeable reserves of foreign exchange, it was possible to run a level of national expenditures substantially in excess of currently accruing resources. This is no longer possible. Accordingly, it is essential that a careful appraisal of current availability of resources should be dovetailed with the plan for expenditures. The confrontation of "Resources and Expenditures" which follows, emphasises the interdependence between changes in resources and in expenditures. It also allows changes in the volume of domestic production to be separated from changes in resource availabilities brought about by the variation of external terms of trade.

Preliminary estimates of the national product for 1967 have been used as the base for the projections. Where the data were lacking or unreliable, the estimates have been based upon the best possible judgement and consistency with other data. However, even if fully accurate data were available for 1967, it would not be possible to use the relationships existing in that year to project 1968 and 1969. Factors such as new industries, surplus capacity and changes in stocks mean that technical relationships of one period may not be a reliable guide for the following period. Moreover the economic policy of the government is directed to inducing the economy to achieve a higher rate of growth from available resources, thus altering the relationships.

Furthermore, there are limits to the extent that the general strategy can be translated into a plan set forth in accurate quantitative terms because of the unpredictability of variables which affect future growth and, secondly, basic limitations in current data. These limitations mean that the plan inevitably has to be based upon a value judgement of the various influences and possibilities. For these reasons the plan needs to be flexible so that adjustments imposed by changes in the variables can be made.

These limitations do not mean, of course, that technical and economic relations have been neglected. Where possible, estimates were made of existing relationships in 1967. The relationships formed part of the evidence for making judgements, for example in forecastinfl import needs.

The projected development is summarised in Table 3.1 The estimates of production are based upon an analysis of the various sectors and are discussed under the appropriate sectors later in the plan, together with the accompanying policy measures. The expenditures, balance of payments and fiscal estimates, are discussed below together with the accompanying policies on which they are based.

The growth of Gross Domestic Product in 1968 as compared with 1967 in real terms is projected at a little over 7 per cent. The money value shows a considerably higher increase, about 10 per cent, as a result of the devaluation of mid-1967. Moreover, a part of the increase in real

TABLE 3.1

RESOURCES AND EXPENDITURES 1967–69

(CURRENT MARKET PRICES)

N¢ million

Sector	1967 *Current prices*	1967 1968 *prices*[1]	1968	1969
Agriculture	600	600	615	633
Forestry (excluding sawmilling plywood and veneer)	88	91	91	95
Cocoa[3]	123	148	210	238
Fishing	20	20	23	26
Mining	49	60	60	63
Construction	72	75	78	90
Manufacturing	127	135	150	163
Fuel and Electricity	33	38	43	45
Services	600	600	630	660
Difference with expenditures	71	73	76	80
Gross Domestic Product at Market Prices	1,783	1,840	1,976	2,093
Imports (c.i.f.)	251	304	315	345
Services excluding factor income	53	63	60	60
Total Resources	2,087	2,207	2,351	2,498

Sector	1967 *Current prices*	1967 1968 *prices*[1]	1968	1969
Private Consumption	1,286	1,289	1,342	1,396
General Government Consumption[2]	308	332	355	373
Increase in stocks	10	10	2	10
Gross domestic capital formation[4]	222	255	260	290
-General Government	(52)	(60)	(60)	(70)
-Other Public Sector	(44)	(50)	(50)	(55)
-Private Sector	(126)	(145)	(150)	(165)
Total Domestic Expenditure	1,826	1,886	1,959	2,069
Exports (f.o.b.)	236	292	359	394
Services excluding factor income	25	29	33	35
Total Expenditure	2,087	2,207	2,351	2,498

(1) Rough estimates at end 1967 prices reflecting *post* devaluation values.

(2) General government consumption includes, and private consumption excludes, certain categories of public corporation activities which usually are treated as part of private consumption.

(3) Cocoa value added in production is calculated *inclusive* of export taxes.

(4) Both the investment and the Gross Domestic Product totals exclude investment in agriculture by farmers other than imported machinery and government expenditures.

terms is contributed by the favourable change in the terms of trade, as a result primarily of the higher world market price for cocoa. Without this help, the gowth in real terms would be limited to a little over 4 per cent.

A basic assumption—and indeed target of the Plan—is a stable domestic price level in 1968 and 1969. The problem of adjusting the rate of growth for price changes accordingly does not arise for the estimates of 1969, except in the case of cocoa. Due to the system of forward sales of cocoa the rise of the world cocoa prices which has occurred and which is assumed to be maintained into 1969 is only partially reflected in the 1968 values for cocoa output and exports. Of the growth of Gross Domestic Product of over 6 per cent from 1968 to 1969, about 5½ per cent represents growth of volume and the remainder is the effect of the higher average cocoa price.

Private Consumption.—In view of the windfall nature of part of the real increase in Gross Domestic Product foreseen for 1968 and 1969 and because of the need to conserve resources for future growth and redeem foreign debt, the Government considers that private consumption per head can only be allowed to grow modestly during the Plan period. Accordingly, private consumption per head has been projected to grow at about 1 per cent per annum. This rate of growth will permit foreign debt obligations to be met with an increase in domestic investment while going some way to meet aspirations for higher standards of living after years of stagnation. The implication of these projections for savings are discussed below.

General Government Expenditure (Consumption).—The total of central and local government current expenditures, including certain current expenditures of public corporations, is estimated at N₵308 million for 1967 or N₵332 million at post-devaluation price and salary levels.

Several influences will tend to enlarge the 1968 total. Normal wage-drift, mainly from regular increments, can be expected to increase the wage component by over 2 per cent and allowance has also to be made for action taken following the recommendations of the Commission on the Structure and Remuneration of the Public Services. Substantial additional expenditure will be incurred in the preparations for elections and the implementation of policy on regional decentralisation. Expansion of social services and the momentum behind earlier expansion programmes, particularly in education, will also push up expenditures. Moreover the policies introduced to curb inefficient expenditures cannot be expected to have more than a marginal influence in the first months. Accordingly, it has been considered realistic to allow for an increase in government consumption expenditures of around 8 per cent in 1968. For 1969, several influences pushing up expenditure will be diminished and the effects of the economy measures will be more fully felt. For this year, an increase of 5 per cent is projected. The implications for the Central Government Budget are discussed later.

Investments.—During the period of consolidation, it was necessary to reduce considerably the level of domestic investment in order to bring national expenditures into line with currently available resources. At

constant prices, investment expenditures in 1967 were little more than half the levels of 1965. Though much of this reduction represented simply the cutting out of unproductive projects, it is necessary, nevertheless, to prepare for a considerably higher investment level in the future. The projections show that in 1968 the downward trend is halted while for 1969 a significant improvement should be possible. While total investment including stocks is projected lower in 1968 than in 1967, fixed capital formation should show a slight improvement. Stock accumulation in 1967 was exceptionally high, principally due to the delays in shipping cocoa; consequently, the requirements for additions to stocks in 1968 should be substantially lower. In 1969 the improved balance of payments situation will permit an accelerated growth in fixed capital formation.

In view of the fiscal situation, no increase in total public investment is projected for 1968. For 1969, an improved fiscal situation and progress in preparing sound projects should permit a substantial increase in public development spending.

For the private sector, a continuing expansion of investment is projected. Taken together with the government enterprise sector, this implies a considerable shift in the allocation of resources towards directly productive investment.

On a long-term view, the projected level of investments cannot be considered satisfactory. Averaging about 15 per cent of Gross Domestic Product for the plan period, it would, after allowing for depreciation, be scarcely adequate as a long-term level to preserve output per head of a fast growing population. For the short period of the Plan however, the outlook is more favourable. First, investments in 1968 and 1969 will have little influence on the growth of output during the Plan period. They are of course of more significance for the following years. Secondly, growth is not only dependent on investments but also on improved organisation and better utilisation of the existing capital stock. In present conditions, this is obviously a realistic consideration. It could be argued that a period of "investments without development" is ending and it is reasonable to suppose that, for a short period, development can occur with relatively little new investment. Third, the increase in the level of domestic investment though at first sight modest is being achieved at a time of heavy debt repayment. It demonstrates the determination of the government to lay the foundation, during the Plan period, for a sustained growth in later years.

The degree of self-help involved is perhaps best brought out by consideration of what is implied for the rate of savings.

	Post-devaluation N¢ million		
	1967	**1968**	**1969**
Gross Domestic Product	1,840	1,976	2,093
Total consumption (private and public)	1,621	1,697	1,769
Domestic savings	219	279	324
Average savings rate	12%	14.1%	15.5%
Marginal savings rate	—	47.0%	38%
Total Investment N¢m	265	262	300
Investment as % of G.D.P.	14.4%	13.2%	14.3%
External savings as % of G.D.P. ..	2.4%	-0.9%	-1.2%

The unusually high marginal savings rate indicated for 1968 and 1969 reflects the increase in cocoa duties as a result of higher cocoa prices on top of the increase of savings from higher personal and corporate incomes. That the higher savings rate is not accompanied by a corresponding increase in domestic capital formation demonstrates sharply the burden of the foreign debt. The benefits of the higher world cocoa price are indeed largely absorbed by the higher debt servicing charges following resumption of debt servicing and the catching up of transfer arrears.

The Balance of Payments

In many ways, the most serious constraint on the growth in Ghana's economy over the next two years is the shortage of foreign exchange. A further major improvement in the balance of payments was achieved in 1967, the deficit on current account excluding debt servicing falling from over 200 million (post-devaluation) new cedis in 1965 and 134 million in 1966 to less than 80 million in 1967. This improvement reflected a policy of austerity in import licensing which cut imports by 22 per cent in 1966 and a further 20 per cent in 1967. It proved impossible to avoid reductions in raw material imports to levels insufficient to permit industrial capacity to be used at justifiable rates. Shortage of imports of investment goods hampered both private and public investment.

There is little prospect of radical alleviation of the balance of payments problem over the next two or three years. The Government must continue to ensure that the foreign exchange resources available are utilised with great care. Only by efficient management of foreign exchange resources will it be possible to reach Plan objectives for domestic production, consumption and investment.

The projections in Table 3.2 and Table 3.3 indicate the nature of the problem and the assumptions made for expansion of exports.

TABLE 3.2

BALANCE OF PAYMENTS

Post-devaluation NC million

	1966	1967 (provisional)	1968 (projections)	1969 (projections)
Receipts				
Exports (f.o.b.)[1]	286	292	359	394
Services[2]	32	32	37	39
Transfer payments	10	5	5	5
Current Receipts	328	329	401	438
Private capital[3]	61	36	22	23
Official aid[4]	57	25	58	53
IMF Drawings (net)	51	19	7	
	497	409	488	514
Used for				
Imports (c.i.f.)[5]	380	304	315	345
Services (excluding servicing debt)	63	84	83	83
Transfer payments	19	21	22	21
Current payments (excluding debt servicing)	462	409	420	449
Debt service (suppliers' credit and long-term)[6]	19	14	52	40
Programmed clearance of old short-term and small debts	—	19	25	15
Reduction of new transfer arrears	—	—		
Reduction of trade credits	—	—	—	
	481	442	497	504
Balance	+16	−33	−9	+10
Reflected in				
Convertible reserves	+22	−38[7]	−9	+6
Bilateral balance	+6	+21	+5	+4
Increase in normal trade credits (− = increase)	−6	−11	−5	—
Accumulation of transfer arrears (− = increase)[8]	—	−4	—	—
Errors and Omissions	−6	−1	—	—

[1] Excluding Valco.
[2] Including Valco current operations.
[3] The fall in 1968 and 1969 reflects termination of major Valco investment.
[4] Utilisation, including suppliers' credit.
[5] Adjusted for ships and Valco current imports.
[6] Contractual payments following debt rescheduling.
[7] Reduction of net convertible assets and liabilities of 42 less revaluation of reserves following devaluation of 4.
[8] Excluding accumulation of arrears treated as liabilities under "convertible reserves".

TABLE 3.3

EXPORTS 1966–69[1]

Millions of post-devaluaiton N¢

	1966	1967	1968	1969
Cocoa beans and products[2]	178	188	240	262
Timber	30	27	31	36
Gold	24	25	30	33
Bauxite	2	2	2	3
Manganese	17	11	10	8
Diamond	15	15	22	25
Other	13	16	17	20
Re-exports	6	7	7	7
	285	292	359	394

[1] Excluding Valco exports.
[2] Adjusted for reporting lags.

The considerable increase in export earnings anticipated in 1968 is based primarily on the larger deliveries from the 1967–68 main cocoa crop and the rise that has occurred in the world cocoa price. Cocoa shipments delayed from the end of 1967 will also swell the 1968 export total. Minor exports stimulated by the devaluation are also expected to expand. The high total of clearance of transfer arrears in 1968 can be regarded as an offset to the receipts from delayed cocoa exports. The elimination of arrears of payments on imports beyond due dates occasioned by the 1967 export delays must in particular be considered an urgent priority. Any continuation of such delays would jeopardise the restoration of confidence in Ghana's standing in international payments. Servicing of suppliers' credits and long-term debts following resumption of debt servicing also bear heavily on the 1968 balance of payments. Accordingly, even with a substantial increase in disbursements from foreign aid and further drawings on the IMF, it will be necessary to hold imports at only slightly above the 1967 level.

Balance of payments policy in 1968 can therefore be considered a continuation of consolidation. This is imposed by the high debt servicing commitments which, including reduction of arrears in payments transfers, exceed the expected level of new aid. If the imports required for domestic production and investment at projected levels are to be met, it is inevitable that imports of many less essential items, particularly of consumption goods, will need to be further reduced.

Fortunately, the relationship found between raw material imports and domestic production in 1967 will be somewhat modified by reduced dependence on imports as a consequence of the growing degree of processing in local industry. The further shift in the composition of imports from consumer goods to raw materials appears attainable though not without difficulty. Moreover, rising output of locally produced consumer goods should compensate for the reduction in imported consumer goods.

In 1969, it should be possible to move on to a higher level of imports, though still below the 1966 total. The improvement is partly due to the higher average cocoa price assumed and a reduction anticipated in the requirements for debt servicing and payment of arrears. A reduction of costly 180 days trade credits and a slight increase in reserves is also projected for 1969.

The rate of disbursement from foreign aid is expected to increase during 1968 and to stabilise at higher levels in 1969. This expectation is based on existing and prospective aid commitments. Further net drawings on the IMF are anticipated in 1968 but none in 1969. In the climate for aid now existing in industrialised countries due to balance of payments difficulties, it has not been considered prudent to forecast higher levels of aid. In consequence, as the table below indicates, the level of new aid including IMF drawings (net) and suppliers' credit will hardly suffice to offset the servicing of existing debts and repayment of short-term arrears. In other words, no net inflow of resources from abroad can be expected from these items over the Plan period.

(Million post-devaluation NC)

	1966	1967	1968	1969
Official aid* and IMF drawings (net) ..	108	44	65	53
Debt service, reduction of payments arrears and trade credit	19	33	77	55

* Including suppliers' credit.

Since new aid now being contracted and rescheduled debt will have to be repaid in later years, it is essential that the terms offered by the donors for aid and for rescheduling of debt should be of the most generous type. Otherwise, if Ghana is to meet its debt commitments it will not be able to escape from the anomalous position of being a developing country pursuing serious policies yet receiving no significant real transfer of resources from the governments of the more developed countries taken as a whole.

It is expected that foreign aid will increasingly be for the financing of specific projects. However, until more projects that will pass the strictest test of suitability for development are ready, and until the basic improvement in the balance of payments has progressed further, it will continue to be necessary to rely on substantial general balance of payments support aid.

The government recognises the urgency of improving the methods of utilisation of foreign programme aid. While the slow utilisation of certain lines of credit that have been made available can be attributed in part to importers' lack of familiarity with the complex procedures involved, the government will take steps to modify the licensing system to ensure an acceleration in the use of such aid. Without better utilisation of foreign aid, the import levels projected cannot be expected to be attained.

IV. THE FISCAL AND MONETARY SETTING

The Fiscal Situation.—Strong action has been taken to bring the fiscal situation in balance. Present indications are that the cash deficit of the government for 1967–68, the difference between actual total expenditures and current revenues, will be approximately covered by non-inflationary sources of finance even though servicing of the foreign debt has been resumed. Moreover, although recurrent expenditures have grown rather sharply due primarily to the effects of the devaluation and the accompanying pay increase of mid-1967, current revenues have grown at approximately the same pace. They now represent roughly 15 per cent of the gross domestic production of the country, a level more consistent with the state of development of Ghana than the 13.5 per cent to which the ratio fell in 1966.

TABLE 4.1

CENTRAL GOVERNMENT REVENUES AND EXPENDITURES

N¢ millions

		1966-67	1967-68 (*Preliminary Estimates*)
Current Revenues		241.5	294
Recurrent Expenditure (excluding external debt)	226.9		
Net new Loans and Advances	4.6		
		231.5	260[1]
Current Surplus (excluding external debt)		10.0	34
External Debt Service			25
Development Expenditure: Cash	75.4	75	
Suppliers' credit	17.0	(8)	
		92.4	83
Deficit before Capital Receipts		82.4	74
Financed by:			
Suppliers' Credit (gross)		17.0	(8)
Other External Borrowing (including use of counterpart)[2]		16.4	10
Total External Borrowing		33.4	18
Non-bank borrowing		32.3	39[1]
Central Bank borrowing		9.0	13
Commercial Bank borrowing		21.8	7
Use of cash balances, errors and omissions		3.9	–4
Total borrowing		82.4	74

[1] Includes social security arrears of approximately N¢10 millions.
[2] Includes special advances by Bank of Ghana against counterpart deposits.

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There are nevertheless certain disquieting features of the fiscal situation. As Table 4.1 makes clear, the level of government saving—the surplus of current revenues over recurrent expenditures—remains very small. Moreover, the increase in current revenues in 1967–68 owed much to the beneficial influences on cocoa duties of the rise in the world market price and the devaluation of the cedi. The influence of devaluation in raising cedi values of imports partly offset the adverse effect of the changing composition of imports on import duties. Similar "windfalls" cannot be expected for the future, although there should be some further benefit from the rise in the average price for cocoa in 1968–69.

TABLE 4.2

CENTRAL GOVERNMENT REVENUES

N¢ millions

	1965		1966-67	1967-68	
Import Duties	107.5	(37.9%)	67.3	60.3	(20.6%)
Cocoa Export Duties ..	22.2	(7.8%)	34.6	81.5	(27.6%)
Excise Duties	19.8	(7.0%)	21.7	24.1	(8.2%)
Sales Tax and Licences ..	42.8	(15.1%)	37.6	38.0	(12.9%)
Income Tax	53.4	(10.8%)	49.3	46.3	(15.8%)
Other Current Revenues ..	38.2	(13.4%)	31.0	43.9	(14.9%)
Total	284.0	(100%)	241.5	294.1	(100%)

The fiscal problem on present indications will become more acute over the next two years unless action is taken to offset the adverse influences. Many recurrent expenditures will automatically tend to increase as development proceeds. More schools for a growing population require more teachers, more hospitals imply more medical staff, the economic services grow as production grows and becomes more complex. Moreover, some increase in average salaries of civil servants will occur. Quite a art from anv general salary increase, a rising average age of the relatively young civil servants will involve some "wage drift". Economies can and will be made in various services; but the phasing of reductions and terminal payments inevitably delay the impact on expenditures. Taking these various factors into account, it seems realistic to assume a 9 per cent increase in 1968–69 in recurrent expenditures apart from foreign debt service and a further 5 per cent increase in 1969–70. The growth in recurrent expenditures will only be held down to this magnitude by the exercise of the strongest vigilance in curbing unnecessary expenditures. All government departments will bear responsibility for the necessary austerity.

The extent of foreign debt servicing requirements cannot be accurately foreseen until after the negotiations on rescheduling of debt take place in the latter part of 1968. Without rescheduling, requirements would grow sharply. Unfortunately, the servicing requirements are at present concentrated in the second half of the calendar year. Accordingly, the alleviation that can be expected for the fiscal year 1968–69 from the debt negotiations is limited. Notional figures of N¢40 million for 1968–69 and N¢35 million for 1969–70 have been assumed for illustrative purposes.

Unfortunately, the prospect for automatic revenue increase is generally not encouraging. With limited foreign exchange resources, little expansion in imports can be expected in 1968. Some alleviation should occur in 1969. Against this, however, has to be set the trend towards a greater concentration of imports on raw materials, spares and machinery which bear a lower rate of duty than the average of imports. The declining trend in import duties, as evidenced in Table 4.2, and the pressure on import licences together indicate that it may be possible to secure additional revenues by selective changes in import duties without serious repercussions on the domestic price level. An additional advantage would be the reduction of the pressure to secure import licences which seriously aggravates problems of licence allocation.

Although an important further improvement in cocoa duties is anticipated in 1968–69, the revenues from this source are projected to stabilise in 1969–70 due to the slight decrease in world cocoa prices assumed. They will however still constitute a higher proportion of total revenues than in 1967–68—a point of evident danger if cocoa exports fail to achieve the value projected.

Income tax, one of the taxes to respond most to a growth in national income, represents an unusually low proportion of government revenues in Ghana. At less than one-sixth of current revenues, it is low in comparison with other developing countries at a similar stage of development. Moreover, the income tax on corporations which represents over half the total income tax receipts, is collected largely on the basis of the previous years income. As business conditions in 1967–68 remained rather depressed, and certain corporate tax concessions already announced are not yet fully operative, no major automatic improvement in yield can be foreseen until 1969–70.

Other tax revenues, which have been projected separately, when taken together show a growth roughly proportional to the growth in national product. Non-bank internal borrowing will be reduced by N¢10 million with the clearing of arrears of social security payments.

The prospects for government development expenditure are set out in Table 4.3 below:

TABLE 4.3

GOVERNMENT REVENUE AND EXPENDITURE PROJECTIONS

NC millions

	1967–68 (*Actual, preliminary estimate*)	1968–69 (*Projections*)	1969–70 (*Projections*)
Current revenues:			
At existing tax rates		328	
Tax changes		12	
	294	340	365
Recurrent expenditure:			
Excluding foreign debt	260	285	298
Foreign debt service	25	40	35
	285	325	333
Surplus	9	15	26
Capital Receipts:			
Foreign borrowing[1]	18	65	
Social security	31[2]	16	
Other internal borrowing	28	8	
Cash balances	–3	—	
	74	89	85
Available for development expenditure	83	105	117

[1] Including suppliers' credit, utilisation of counterpart funds and direct aid.
[2] Including arrears of social security.

In conformity with the general objectives of the Plan, the projection of government development expenditure represents a progressive advance from the period of stabilisation to one of development. For the calendar year 1968 no significant expansion in government investment is projected, the increase in development expenditures for the fiscal year 1968–69 is expected to fall in the second half of this fiscal year. However with the continuing elimination of unsound or barely economic programmes and the inclusion only of new programmes that meet stringent tests of efficiency, the impact will be greater than the bare totals may suggest. For the calendar year 1969, more government finance for development expenditures should be available. Moreover, it is the intention of the

government to switch the financing of revenue producing projects as soon as these can be placed on a sound basis progressively from the budget to bank finance. This will lead to further economies.

The prospects for foreign aid have been discussed above. It would be unrealistic, however, to assume that an extension of foreign aid can be attained or should be sought without a corresponding effort by Ghana to increase its own contribution to the financing of the development expenditures. This will be the task of budgetary policy in the light of the negotiations for foreign aid and debt rescheduling.

Monetary Policy.—Monetary policy during the stabilisation period has been directed at ensuring that monetary demand is kept in balanced relation with resources available. This remains a general objective. It is necessary to prevent an excess of demand from causing an inflationary rise of prices and pressure on the balance of payments. It is no less necessary to ensure that anti-inflationary measures are not too severe, thereby causing a slowing down of production, investment and consumption to levels lower than could have been attained within the limits set by the balance of payments and general price stability.

The policies of the government during the period of stabilisation had to be drastic to bring the inflationary trends of the preceding years to a quick halt before they became endemic. Money supply was in fact kept roughly constant throughout 1966 and 1967. To achieve this result, only a marginal increase in credit to the private sector could be permitted. Despite the impact of the devaluation in raising the cedi value of imports, the success attained is demonstrated by the stability of consumer prices.

	Dec. 1964	Dec. 1965	Dec. 1967	Dec. 1967
National Consumer Price Index (March 1963=100)	127.2	165	161.9	157.0

The efforts of the government in restoring a balanced fiscal situation played a major role in this success as did the monetary policy pursued by the Bank of Ghana. The decline in prices in 1967, despite the devaluation, was also helped by good harvests.

The government's policy will continue to be to preserve a balanced fiscal situation so that the effect of government transactions on the monetary situation is neutral. This balanced fiscal position will now provide scope for an appreciable increase of credit to the private sector without causing the money supply to expand out of relation to the increase of 7 per cent in real resource projected for 1968 and the further 6 per cent in 1969.

A programme of expansion of money supply of around 4 per cent in the twelve months from March 1968 has been adopted. Within this ceiling, maximum encouragement will be given to exports and domestic production. The monetary authorities have already announced policies which will permit an expansion of up to 50 per cent in commercial bank credit for exports, agriculture and industry including eligible state enterprises. In view of the need to restrain import demand, the permissible

expansion must remain more limited for other sectors. Monetary policy will remain flexible and will be adjusted in accordance with any inflationary or deflationary pressures that arise.

An important element in monetary policy is the promotion of savings not only for the immediate beneficial effects in reinforcing the anti-inflationary measures, but also to provide the base for expansion of investment. To promote savings in the private sector, the government will review present incentives to save, both for individuals and businesses. Steps will also be taken to ensure a higher rate of return on revenue-earning investments of the public sector, such as public utilities and housing, so as to reduce the need for subsidies where these still exist and to provide finance for expansion. Special attention will be given to reduction of arrears of payments due, and to inadequate billing procedures.

In agreement with the general policy of directing credit expansion towards productive sectors and the need to stimulate savings, a review will be made of the interest rate structure. While capital and imports remain as short as is inevitable over the plan period, no general reduction in interest rates appears warranted. Rather, interest rates should reflect an emphasis on capital-saving and labour-using activities. If however, it appears that certain anomalies exist in the interest rate structure which bear heavily on sectors which it is desirable to expand, or which may be prejudicial to higher rates of saving, these will be corrected.

In the closely allied field of price and wage policy, the newly established Incomes Commission will be responsible for formulating appropriate incomes policies to prevent a wage-price spiral. Wage and salary increases must generally be kept within the limits of increased productivity and reserve statutory powers have been accorded to ensure that the development objectives of the country are not endangered by unjustified pay increases. The Board will also exercise a watching brief to prevent excessive prices and profits.

The level of farmer incomes, which is dependent on both quantities produced and prices realised, must also be kept in appropriate relationship with urban incomes if equity between individuals and regions is to be furthered. Price supports for agricultural products are difficult to administer; but the government's policy is to proceed as far as can be justified in this field having regard to the general fiscal situation. At the same time, the increased emphasis on agricultural development and on rural infrastructure and amenities will help in directing a fair share of the country's income growth to the rural areas.

V. THE ORGANISATIONAL SETTING

The Government's policy on decentralisation of the planning process has been set out in the "White Paper" of August 1967. The paragraphs below expand on the implications of this new policy. Only the general principles on which national planning are to be based are dealt with here; specific points of organisational detail are treated in the appropriate section of the plan.

While the Ministry of Economic Affairs is responsible for the preparation of overall development plans, the formulation of sector plans is to be progressively taken over by the various ministries. Co-ordination with departments and the operating agencies working under the aegis of each ministry is indispensable for the formulation of realistic sector programmes. Regional plans are the responsibility of the Regional Planning Committees whose members include Government officials and prominent private persons.

In order to design an overall development plan, the Ministry of Economic Affairs has to co-ordinate the sector programmes and regional plans, interpret them and analyse them for consistency. In consequence the Ministry of Economic Affairs assumes an "inter-ministerial status", with contacts with other ministries at all levels. As a complement to this, the Ministry of Economic Affairs must co-operate with, and support the other planning agencies, by supplying information available to it and respecting their responsibilities.

The interlocking of ministerial sector programmes (vertical planning) with the wider ranging overall and regional planning (horizontal planning) requires a careful allocation of responsibilities between the planning agencies. To avoid disintegration and confusion, it is necessary to determine at what levels the various types of decision involved can most appropriately be taken.

The allocation of resources to the various sectors has to take place at the highest level in order to avoid underspending or, more probably, overspending. A first scrutiny of all projects will be undertaken by the agency which puts forward the proposal; however, the Ministry of Economic Affairs has to ensure that the methods of evaluation are the same in each case so that the merits of different projects can be directly compared. The Ministry of Economic Affairs should ensure that the skill required for the scrutiny of projects is disseminated to all organs and agencies which are charged with project formulation. The inclusion of a certain project in the Plan, however, should be decided at the highest level, but the responsibility to decide upon certain inexpensive projects could be left to executive levels.

Close attention will be paid to the implementation of the plan. With regard to the general performance of the economy, the Government will use the instruments available, as described in chapter II. To operate such a policy successfully, however, it is essential that the Government

should have at its disposal up-to-date information on the progress of the economy. Steps are being taken to ensure accelerated collection of the relevant data.

For the implementation of projects in the public investment programme, the Government is convinced that it must decentralise responsibility. The lower level public bodies, which are on the spot, are closer to the problems involved than the central administration, and hence they are the ones who should be responsible for the implementation of projects and programmes. It is, however, necessary that they should report back to the co-ordinating agencies. The feed-back of data on project implementation is not only required in order to keep a check on progress in implementation and the flow of expenditure but also to provide a guide for the formulation of new projects.

Another step to improve and control the implementation of the plan will be to provide closer links with the budget. If a plan is to have an effective influence on the course of country's development, it must be more than mere projections of trends or a pious hope for the future. It is essential that the annual budget also should reflect the requirements of the plan, and that the planners should be aware of budget constraints. Accordingly, every effort will be made to ensure the closest co-ordination between those working on the budget and those engaged in planning activities.

In order for the development programme set out in a plan to become a reality, not only must the plan and the budget be closely linked together, but the foreign exchange necessary for development must be carefully controlled. The foreign exchange stringency predicates a continuation of measures to improve import licensing procedures. Moreover, the uncertainties of international trade make it difficult to forecast foreign exchange availability accurately. This makes it necessary to preserve some flexibility in the import programme by means of a system of minimum allocation to be supplemented when additional foreign exchange becomes available occur.

The geographical aspects of planning have not yet received much attention. The physical planning department in the Ministry of Economic Affairs provides a link with the Regional Planning Committees, thereby giving a spatial dimension to a development plan. The combination of physical and economic planning on a regional level will help the regions to define their structural problems and to identify their needs. Increasing attention will be given to the geographical aspects of planning but—as experience in other countries has shown—it will take some time to harmonise economic and physical planning.

It is the declared policy of the Government to rely on private enterprise where it can be effective in promoting the desired objectives. This necessitates close contacts between the planning organisation and organisations representing private enterprise. These contacts should be institutionalised, to provide a continuing exchange of views between the Ministry of Economic Affairs and organisations of entrepreneurs, employers and employees. In addition to such formal contacts, discussions

will be arranged with executives of firms in different sectors of the economy. This will enable the Ministry of Economic Affairs to assess realistically its own estimates and expectations. Such discussions should also lead to the earlier identification of bottlenecks and assist in overcoming them.

An efficient and smooth-running planning machinery cannot be set up overnight. In the first place, skilled planners are scarce; but, more fundamentally, it is impossible in the abstract to make a detailed blueprint for a planning organisation. The principles upon which such an organisation is based can be readily stated but the exact planning structure which will best suit the country, can only be discovered from experience. Since the Government regards planning as a continuing exercise, it follows that the utmost attention will be given to the training of local staff, so that the country need not rely on external assistance to plan its own future.

VI—1. AGRICULTURE

Present Situation

The value added by agriculture in 1967, exclusive of cocoa, has been estimated to be about N¢600 million; inclusive of cocoa the total would be N¢721 million. This amount is 42 per cent of the Gross Domestic Product of Ghana in 1967.

The resources used by agriculture include mainly labour and land with a relatively small amount of capital. Agriculture, including cocoa, provides employment for a labour force estimated at 1.77 million persons, which is at least 60 per cent of the total labour force. Moreover, the agricultural labour force is increasing in size because the growth in the farm population is greater than the number of persons who leave agriculture for non-farm employment.

The nature of farming enterprises is such that persons engaged in agriculture other than cocoa are mostly self-employed; thus there is no major problem of unemployment in agriculture. However, the majority of persons engaged in farming work with small amounts of capital and use methods which yield a relatively small production per man.

The low level of productivity in agriculture is at the root of two major problems which face the Ghanaian economy. First, domestic food supply has been inadequate because agricultural production has barely kept pace with the demands of the growing population. Ghana imported food in the amount of nearly N¢50 million in 1967. Thus foreign exchange, which was needed to finance capital purchases for development, was used to purchase food from abroad. Second, the low labour productivity in agriculture has a depressing effect on the level of farmers' incomes.

For these reasons emphasis should be laid on raising labour productivity throughout agriculture. But the methods of raising labour productivity must take account of the fact that the supply of capital is limited and that capital intensive methods of raising labour productivity tend to displace labour. Therefore, it is desirable to encourage the use of high-yielding varieties along with labour intensive methods in agriculture. This approach could include the introduction of simple mechanical equipment and animal power, but the labour supply is so adequate that large labour-saving machines are unlikely to be economic for Ghanaian agriculture at the present time.

Agriculture presents a difficult case to analyse in terms of growth, employment, investment and services required. The complexities arise from the fact that the basic resources of land, labour and capital are used to produce a long list of food and non-food crops, as well as animal products. Thus the effect of an incentive intended to expand the production of one crop will tend to reduce the output of another by drawing resources away from it.

Ultimately, the growth and development of agriculture depends upon decisions taken by a large number of small farmers. The factor which governs farmers' allocations of resources to the various products

is basically the prospect of net returns to farmers' labour. The net income is determined by the relative prices of various crops, changes in which induce farmers to shift from one crop to another more profitable one. Thus if agricultural production is to increase there must be the incentive to farmers in terms of prospective net income. Secondly, farmers must be able to obtain additional capital either from savings or loans. Thirdly, agriculture needs a number of public services; in particular, farmers require information and assistance on the application of new technology which results from agricultural research.

For 1968–69 the Government has guaranteed the minimum price for maize of N₵4.50 per bag of 220 lb. and of N₵6.20 per bag of 180 lb. for rice. These assurances of minimum prices are intended to have the effect of increasing the output of the two crops. The net increase in the total output of food, however, will depend on the extent to which the resources (chiefly labour) used to produce more maize and rice, are taken away from the production of other crops, and on the extent to which more adequate local storage can be provided so that crop losses can be reduced, and farmers can be assured that maize and rice brought to market will actually be received by the market. The Government will assist in providing the storage space needed to make the guaranteed minimum price programme effective.

In respect of investment two possible sources exist. The first source is the farmer who invests his savings in his farm or uses his labour directly to improve his farm. The second source is the farmer who borrows from private money-lenders or from public investment banks. The public source of loans to small farmers who intend to invest, is the Agricultural Development Bank. The Bank currently is extending its lending programme and is improving the lending services to farmers by locating regional offices in the farming areas.

Another source of investment is capital from abroad. This is a potential source of capital for agriculture which usually involves proposals for agricultural development which are capital intensive. These need to be scrutinized carefully so that Ghana can be assured that real benefits will accrue from such investments. It is important that the benefits should include the expansion of employment for Ghanaians to slow down the migration to the cities from the rural areas with its attendant problems of unemployment.

The Ministry of Agriculture provides many services to assist farmers to produce crops and livestock. Included in these services are: making available certain inputs such as seed, providing extension services, promoting the improvement of crops, encouraging livestock development, and assisting in irrigation development where it promises to yield an economic return on investment. Among other policies to assist development are prices, research, the construction of feeder roads, mechanisation, the settlement programme, seed multiplication, disease control and quarantine.

Growth and Development 1968 and 1969

For the years 1968 and 1969 agricultural output from crops can be expected to increase at the same rate as the growth of the labour force in agriculture, which is about 2.5 per cent per annum.

The Government is pressing forward with a set of policies which will increase crop production but it will be too soon for the effects of this programme of promoting investment and providing more services to farmers to result in a marked increase in crop production.

The production of livestock in Ghana is a small proportion of total agricultural output. For the immediate future of 1968 and 1969 the only animal product where a modest increase in output will likely take place is in the production of eggs and poultry meat. The cost-price ratio is favourable, the planning period for production is short, and small farms can produce eggs and poultry meat with a small outlay of capital.

The prospect for overall agricultural growth in 1968 is that output will increase at the same rate as the increase of population in the rural areas, i.e. in the order of 2.5 per cent. This would amount to an addition of N₵15.0 million to the Gross Domestic Product of agriculture. For 1969 the increase would be slightly larger and has been projected at an additional N₵18.0 million to give a total value added by agriculture of N₵633 million.

Agricultural Policy

The development of the Ghanaian economy will require a continuing growth in the output of agriculture. These additions to output are needed for the following reasons:—

(*a*) to meet an increased proportion of Ghana's food consumption from local production;

(*b*) to provide food for a larger number of people as the population grows;

(*c*) to provide raw materials for existing and prospective factories in Ghana;

(*d*) to provide surpluses for export of those commodities which Ghana can profitably sell on the world market, in either processed or unprocessed form.

There is urgent need to improve the *per capita* income in rural areas. Such an improvement will provide an expanded market for the types of goods that can be produced in Ghana. It will also raise the level of welfare of the rural population and tend to slow down the migration to the urban centres. Furthermore, the discrepancy between rural and urban incomes contributes to urban unemployment because the higher urban incomes tend to attract more rural people into urban areas as job-seekers than can be trained and absorbed by the developing industries and services of Ghana.

In contrast to the large and growing labour force in agriculture and the adequate supply of land, the amount of capital used in agriculture is relatively small. Moreover capital is in short supply throughout the entire economy.

Advancing technology has made available a number of varied improvements and gains in crop technology which should be adaptable to Ghanaian agriculture.

Research and Extension.—These services must play an important role in the development of the agricultural economy. The responsibility for applied research rests with the Ghana Academy of Sciences in which there are several Institutes devoted to agriculture. A stepped up programme of adaptive research in crop production will be a necessary part of agricultural development, for it is essential that technological advances in food production be thoroughly tested and adapted to Ghanaian farming conditions. Similarly the extension programme needs to be enlarged, particularly with the provision of better transport, to enable the extension staff to do more intensive work with farmers.

The Government will ensure that there is a strong link between the Extension Division and the Institutes responsible for agricultural research. The Government will also enlarge the scope and the amount of extension services offered to farmers through the Ministry of Agriculture Associated with the strengthening of extension will be a policy to improve the conditions of service of the technical and professional staff in agriculture.

Agricultural Settlements.—The Government intends to continue with the policy for agricultural settlement. The programme will include training young men and women over a three-year period in farm practices. Following this period of instruction the trainees will be settled on land in communities of about 50 families.

Mechanisation.—The Government's policy on mechanical services to farmers will be to put into service the large numbers of tractors and other equipment available in the country. In order to minimise the losses on such equipment, mechanised services will be concentrated on those crops which will give a good return on mechanisation. As far as possible, these services will also be geared to those crops for which guaranteed markets have been established or those for which credit can be justified.

Feeder Roads[1].—The Government already has initiated a vigorous campaign for the improvement of feeder roads. Combined with the lifting of restrictions on spare parts, this should go a long way to help farmers to move their products to the markets. The survey to find out areas of intensive agricultural activity with limited facilities for moving out farm products will continue in order to assist the Government in establishing priorities for feeder road development.

Guaranteed Minimum Prices.—The Government realises that no businessman can plan and operate in a climate of highly uncertain prices. Many enterprising men have gone into farming only to withdraw because the prices paid for their produce have been below adequate remuneration for costs and effort, and have frustrated their expectations.

In order to minimise the risks in farming the Government has committed itself to a policy of guaranteed minimum prices for certain key

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[1] *See* Chapter VII (1).

crops like maize, guinea corn, rice and groundnuts. Action is being commenced on maize and rice. While the farmer is free to sell anywhere he likes, the Food Marketing Corporation will purchase from the farmers any quantities of these items at the announced prices. Since the operation of guaranteed minimum price schemes requires adequate storage facilities, the Government will assist co-operatives to install additional storage facilities as well as individuals who want to enter the storage business.

Agricultural Credit.—In the past, the farmers of Ghana have relied on their own resources which have been very meagre so that the rate of investment has not only been slow but has tended to be concentrated on crops like cocoa which have a guaranteed market and whose production and processing are simple. In order to diversify the country's agricultural efforts, the Government will increase its loans to farmers through the Agricultural Credit Bank, which will be organised to expand its services to farmers. The Government hopes to interest the Commercial Banks of the country in the provision of short-and medium-term credit for farmers.

Irrigation.—A number of dams, in areas suitable for irrigation, have been completed. The policy of the Government will be to provide irrigation for farm land near these dams if the additional revenue from the crops resulting from irrigation will warrant the expenditure required to provide the irrigation system and the land development. No further construction of dams other than stock watering ponds and dug-outs is contemplated until the presently developed water storage capacity is fully utilised.

Availability of Inputs.—The Government realises that any amount of education is useless unless there are available, within reasonable purchasing distance, those inputs of production such as fertilizers, improved seed and breeding stock, plant protectants and vaccines. The Government will make more of these inputs available to farmers at various points in the country. A start is to be made, through marketing organisations, on the provision of these input factors under terms of credit which would make it possible for farmers to afford them.

Crop Improvement.—In addition to these general policies aimed at an overall agricultural development, the Government is to give priority to the development of certain vital crops. These include oil palm, sugar-cane, tobacco, fibre, cotton, maize, rice and other grain crops. In the production of these crops, the Government will encourage large-scale production methods, with private farmers and co-operatives playing an important part.

Oil Palm.—The importance of vegetable oils in world trade and particularly in Ghana's economy cannot be over-emphasised. The oil palm is the highest producer of vegetable oil per acre. Moreover, palm-oil forms an important part of the Ghanaian diet.

Oil mills, supported by estates, are essential to the economic production of oil palm. A number of sites have been selected for further detailed investigations. These investigations will be speeded up and the most promising areas will be developed.

The oil mill at Pretsea will require additional acres of oil palm to provide an adequate supply of raw material. The Government will grant loans, through the Agricultural Credit Bank, to farmers within an economic radius of the factory in order to develop sufficient acreage in oil palm to meet the needs of the factory.

Over the past few years the Crop Research Institute has managed to assemble some first-class seed lines. The Government will help the Crop Research Institute to make Ghana self-sufficient in the supply of the most up-to-date seeds for rapid development of the oil palm industry.

Three main forms of development will be encouraged. These are, large-scale government plantations, farmer co-operatives and limited liability companies. Small-scale farmers will be growing mainly to meet the dietary needs of the country. However, Government will continue to encourage them to grow oil palm for factory processing where their farms are within economic distance of the factories.

Sugar-cane.—Two sugar factories have been constructed in the country with a total minimum capacity of 36,000 tons of sugar and a maximum capacity of 50,000 tons. In 1967, these two factories produced only 4,000 tons of sugar from cane produced partly on their own estates and partly by private farmers. There is evidence that farmers in the factory areas would be willing to produce more cane for the factories, provided the problem of buying can be solved. The Government will re-organise the systems in the two factories to induce more farmers to go into sugar-cane farming. The Government will also provide enough funds to purchase all that farmers will grow for the factories.

Rice.—The importance of rice in the diet of Ghanaians has increased in recent years, particularly in the urban areas. The profitable production of rice, however, requires an adequate amount of water. For this reason, the main irrigation policy of the Ministry of Agriculture will be directed towards rice production. Yields of new rice varieties tested on the University farm at Kpong have shown that the prospective benefits from investments in irrigation for rice have improved.

Cotton.—Little cotton is growing in Ghana although the three neighbouring countries, Ivory Coast, Upper Volta and Togoland are large producers of the crop. The production in neighbouring countries indicates that cotton will grow in Ghana also, and this fact is supported by the existing small-scale production. The Government therefore is starting a vigorous campaign of cotton production; in this direction a Cotton Development Board has been set up to promote the programme. The programme will include the training of extension personnel and the provision of seed, fertilizer and insecticide to co-operating farmers. The campaign will be based initially in the northern part of the country in an effort to give that area a cash crop industry.

Kenaf and other Fibres.—To export 400,000 tons of cocoa requires about 8 million sacks each year. To this amount must be added the requirements of other commodities and any future increases in food production. The main problems with the production of fibres for the

manufacture of sacks are the ribboning of the plants and retting of the fibre. The Government will seek foreign expert knowledge and partnership in this venture with the aim of making the country self-sufficient in fibre in the near future.

Rubber.—It is estimated that there are over 6,000 acres of co-operative and private rubber farms in the country, which were neglected because of the withdrawal of rubber subsidies which originally induced farms to plant. The Government will grant loans, through the Agricultural Development Bank, to farmers to rehabilitate their farms, and to purchase processing equipment in order that the nation may benefit from this past investment.

A school will be established to train farmers in the proper techniques of tapping and processing in order to prolong the life of the trees.

Tobacco.—The substantial increase in the production of tobacco is to be further encouraged; the emphasis will be on the production of high grade leaf for which at present the country depends largely on imports. The Government intends to make use of the expert knowledge of the manufacturers in this exercise.

Maize.—Guaranteed prices have been established for maize because of its importance, not only as the staple food for a large section of the population but also for the livestock industry of the country.

The Government realises that yields of maize from peasant farms are very low. To raise these yields intensive education of farmers in maize growing will be started, and also a programme to provide the necessary inputs for greater production.

Other Crops.—Tomatoes and pineapples are important to the Ghanaian economy because they form an important part of the diet of Ghanaians and have an export potential.

With the commissioning of the factory at Pwalugu, the Irrigation Division will double its efforts to supply enough water for the growing of tomatoes so that the present area of 1,200 acres can be trebled in the next two years to provide enough tomatoes to feed the factory.

The largest investment item in pineapple production is the cost of the suckers. The Government will start a nursery for the production of suckers and a scheme to supply them at a price which is within the farmers' ability to pay. The successful implementation of this scheme will provide much needed raw material for the Nsawam cannery.

In order to meet the demand for planting material to feed the Wenchi Mango Factory, a large nursery is to be established in the area to supply farmers with the variety of mangoes that the factory would require.

Livestock.—In the field of livestock the Government will continue its policy of rapid development of the prolific and quick-maturing species like poultry and pigs. It is gratifying to find that imports of eggs and poultry meat have been practically replaced by local production. It is the Governments' policy to reduce the cost of production so as to bring poultry and pig products within the reach of the average Ghanaian family.

While the indications for satisfactory development of sheep and cattle production are there, it is recognised that the development of this industry will be slow at the beginning. Nevertheless the Government will pursue a firm policy of development. In the early stages efforts will emphasize the provision of stock, water and veterinary services in order to reduce mortality rates among livestock.

Sector Studies.—A comprehensive study of the agricultural sector has been commissioned. This study should result in a better understanding of the resources and problems of this sector, and should lay down both short-and medium-term programmes for development. It should also lay down priority programmes for immediate development.

In pursuance of its policy for a comprehensive study of the agricultural industry which would assist sound, sensible and organised development in a manner which would bring the most rapid results for the economy, a strong agricultural programming unit is to be established in the Ministry. This unit's sole responsibility would be that of the preparation of plans and plan implementation.

State Farms Corporation.—The Corporation now has 79 locations throughout Ghana of which 10 are service centres. Seven of the remaining 69 farms are being abandoned and 27 are being transferred. Of these 27 farms, 10 will be taken over by Ghana Rubber Estates Limited, 13 will go to the Cocoa Division, one to the Settlements Division and three to Ghana Pioneer Farms Ltd.

When the above adjustments have been completed there will be 35 units remaining. Eight of these are not yet yielding any revenue, a few are currently viable, a few are of doubtful viability and the rest could pay their way in the long run.

The Government's policy will be to retain those State Farms which have sufficient advantages so that they may be operated profitably, and new State Farms will be developed where they can be justified. The Government however will adopt a commercial attitude to the State Farms Corporation, which will be required to pay its way and not to rely on budget subventions from the Government for current expenditures.

VI—2. COCOA

Present Situation

The results of a survey in 1964 showed that the area used for growing cocoa was 4.2 million acres. The other main resource is the labour force which has been estimated to be 522,000 persons, most of whom produce other crops as well. The value added by cocoa to Gross Domestic Product in 1967, including the export tax, amounted to about N¢120 million.

The average yield in 1967–68, based on an estimated production of 403,000 tons[1], amounted to 216 lb. per acre, which is low in comparison with attainable yields. Even allowing for the fact that some of the acreage is out of production due to the ravages of capsids and swollen shoot, such a low yield seems to indicate that there is some latent capacity in the industry. Therefore the possibility exists of expanding the output of cocoa through increasing the yield per acre on the area occupied by bearing cocoa trees.

The capacity for short-run expansion has been demonstrated by the fact that the main crop in 1967–68 was larger by 27,000 tons than the main crop of 1966–67. This amount was more than could be accounted for by the influence of weather. Two other factors were involved in this increase in output. One was the influence on production of the larger supply of insecticide to control capsids. The amount supplied by the Cocoa Division to farmers in 1967 was 300,000 gallons compared with 90,000 gallons in 1966. Also the amount of cocoa harvested was influenced by the higher price of N¢6.50 per load, which applied to the main crop of 1967–68, as compared with N¢4.50 for the main crop of 1966–67. An increase in price of this magnitude provided a strong incentive to farmers to put more time and effort into the care and harvesting of cocoa, thereby contributing to the larger crop.

Expected Growth and Development in 1968 and 1969

In 1968, the prospects indicate a further increase in the output of cocoa, assuming average weather conditions. The price announced in 1967 can be expected to influence production upward in 1968–69 because the full effect on output could hardly be realised in the first crop after such a substantial advance in price. Moreover, a larger amount of Gammalin 20 for capsid control will be made available during the Plan period and this also will contribute to a larger cocoa crop in 1968–69. The combined effect of the two factors of price and the availability of Gammalin 20 could amount to an increase in output of 10 per cent in the 1968–69 main crop, and a further increase of 5 per cent in the 1969–70 main crop, given average weather conditions.

Such an increase in the level of output would boost substantially cocoa's contribution to Gross Domestic Product, assuming roughly stable world prices. Due to the system of forward sales, the present levels of

[1] This total includes the main crop 1967–68 of 390,000 tons and the mid-crop of 1968 estimated at 13,000 tons.

world cocoa prices will not be fully reflected in receipts until the second half of 1968. Thus the growth in value of output in both 1968 and 1969 should exceed appreciably the growth in volume.

The favourable short-run prospects for 1968 and 1969, however, provide no grounds for complacency about the longer term prospects. The incidence of swollen shoot disease is increasing because the present action to stop the spread of the disease is inadequate and new areas are becoming infected. Furthermore the average age of the cocoa trees has increased because the rate of replanting in recent years has not been high enough to offset the ageing of plantings as a whole.

Cocoa Policy

The cocoa industry makes a very substantial contribution to Ghana's Gross Domestic Product. To ensure that this contribution will continue, it is important to adopt a strong national policy for the cocoa industry.

The output and the value added to Gross Domestic Product by cocoa is determined by the world market for cocoa, together with the degree of comparative advantage that Ghana can achieve as a producer. Given the fact that the cocoa farmer is the key figure in the industry, being the decision maker in production, the objective of national policy should be to provide a co-ordinated set of public services to assist the farmer in making production decisions and in selling the product.

Cocoa is a key foreign exchange earner and therefore it is the objective of policy to maximise the foreign exchange earnings from this crop. To achieve this objective emphasis will be laid on maintaining the cocoa industry in a strong position to compete in world markets. This will entail a comprehensive programme of research, replanting, extension, the control of capsid and swollen shoot disease, marketing, and producer pricing.

At the present time public policy for cocoa is administered by a number of institutions. The Cocoa Marketing Board organises the local purchase of the crop from farmers, and the Cocoa Marketing Company undertakes to sell and to export cocoa. Research is the responsibility of the Cocoa Research Institute of the Ghana Academy of Sciences. The Cocoa Division of the Ministry of Agriculture supplies Gammalin 20 to farmers, engages in a campaign to control swollen shoot disease, and is now starting a programme to replant areas which have suffered devastation by swollen shoot and capsids.

The Cocoa Division will be strengthened in terms of manpower and facilities. The purpose will be to enable the Division to effect a general improvement of cocoa husbandry practice so as to increase production per acre.

Some replacement of old trees with new plantings is being done by individual farmers, but trees need to be replaced at a faster rate than at present to maintain the productive capacity of the industry. Therefore, the Government will promote a major scheme to produce seedlings and replant devastated areas. In 1968–69 the Cocoa Division will plant 1,000 acres of the higher yielding hybrid cocoa as the first step in a larger rehabilitation

scheme which the Government hopes to develop with the support of the World Bank. In this scheme the Government will replant large contiguous areas in order to make up the losses due to cutting out cocoa trees to control swollen shoot disease. The programme will be carried out in those parts of the devastated areas where the prospects of establishing viable cocoa farms are favourable.

The extension services currently available to cocoa farmers are inadequate to meet the needs of farmers for technical advice in adopting new varieties and better cultural practices. The Government believes that farmers would benefit from having more direct access to the results of research, particularly on how to apply this knowledge to the physical environment, and how to adapt it to the capital and labour supply of cocoa farmers.

The Government intends that the two programmes, namely investment in replanting and enlargement of the extension service to cocoa farmers should go forward together, for in order to obtain higher yields from the hybrid cocoa varieties farmers must adopt new methods of management practice. Accordingly, the Division will carry out trials and demonstrations on private farms to obtain information from which recommendations can be made to all farmers on various aspects of cocoa cultivation. It will train farmers and farm workers to make the best use of the results from research and tests; it will inculcate in them the concept of achieving greater production from existing acreages through the adoption of improved agronomic techniques. In addition, the Division will increase the rate of cutting out infected trees for the control of swollen shoot disease, and the supply of insecticide available to farmers for capsid control.

The adaptive research and demonstration, which put the results of controlled experiments into practice in the physical and economic environment of cocoa farming, particularly needs to be strengthened. This will be achieved by ensuring a strong link between the Cocoa Division of the Ministry of Agriculture and cocoa research.

The Cocoa Marketing Board will continue to be responsible for marketing and selling cocoa. The Government's policy for determining the producer price of cocoa will be to co-ordinate pricing with other aspects of policy for the cocoa industry and the economy. This basis for pricing will be adopted because the amount paid to producers affects the Government's expenditure as do the outlays on research, extension, insect and disease control, and replanting. Therefore, the producer price will be determined in relation to a number of factors including the expenditures likely to be required for the other parts of cocoa policy, the revenue obtained from the sale of cocoa, and the level of cocoa farmers' incomes in relation to other producers.

VI—3. FORESTRY

The main products of the forests of Ghana are commercial timber, firewood and charcoal for household use, and a considerable number of minor products such as gum, resin, wild rubber, sap, bark, herbs, wild fruit, flowers, leaves, reeds, and needles. The timber business consists of exporting logs, processing logs into sawn timber, veneer and plywood for both the export and the domestic markets, and producing sleepers, roundwood, and other kinds of hewn and split wood for domestic uses.

The closed forest zone of Ghana includes 4,564 square miles of production reserves, 3,996 square miles of protection reserves and 35,120 square miles of unreserved forest area in which agriculture competes with forestry for the use of the land. The unreserved forest area is decreasing in size and the amount of timber being cut in this area is declining.

From the industrial point of view Ghana's timber resources can be classified as:

(*a*) the prime timbers, i.e. the redwoods,

(*b*) Wawa,

(*c*) other species marketed,

(*d*) secondary species which might be utilised.

On the whole the loggers extract only a few species of trees. Some companies, particularly the small contractors, concentrate on cutting only the species which can be sold for high prices in the export trade. In all only 25 to 30 species of Ghanaian woods are being extracted from the forests out of an estimated 150 species which could be utilised. Sixteen species are regularly extracted from the timber concessions and another ten to fifteen species are cut only intermittently. In 1967 Wawa accounted for about one-quarter of the output of logs and five species accounted for about one-half of the total.

There are 56 firms in the industry which are in the business of both exporting logs directly and processing logs into sawn timber and plywood. Twenty-four of these firms handled about 70 per cent of the total logs produced in 1966; 32 others handled about 15 per cent and a very large number of small firms, which carry on logging operations only, produced the remainder.

In 1966 the output of the forests, excluding the minor products, amounted to 360 million cubic feet (true measure) of logs. Of this quantity 60 million cubic feet were for commercial products including 17 million exported directly, 30 million used by sawmills, 13 million used in other commercial products. The remaining 300 million were consumed as firewood and charcoal. Of the 60 million cubic feet of commercial timber about 25 million were exported. The foreign exchange earnings from timber amounted to N¢30 million in 1966.

Value Added and Growth, 1966 to 1969

The net value added to G.D.P. by forestry in 1966, excluding any processing, was estimated at N₵70.1 million, obtained from:

Product	*Value Added N₵ million*
Industrial Wood	11.5
Firewood	37.3
Charcoal	3.2
Minor products	18.1
Total	70.1

In 1967 the physical output of industrial wood was slightly less than in 1966. However, the effect of devaluation, which occurred in mid-1967, more than offset this decline in its effect on cedi value added. In respect of other products it may be assumed that the output of firewood, charcoal and minor products increased at the same rate as the growth of population. Therefore the estimated value added by unprocessed forest products in 1967 was N₵74 million. The value added in processing by the sawmills and in the manufacture of plywood and veneer was estimated to be N₵13.5 million, making a total of N₵87.5 million as value added by the forest industries to G.D.P. in 1967.

In 1968 it is anticipated that the physical output of forestry will be slightly greater than in 1967. In addition the effect of devaluation on the gross income derived from exports will be greater in 1968 than in 1967, because devaluation will affect cedi earnings from exports throughout 1968, thus making the value added to G.D.P. by the forest industries in 1968 amount to an estimated N₵91 million.

Two factors are favourable to increasing the physical output of timber in 1969. One is devaluation which has had the effect of increasing the cedi earnings from exports and thereby has improved the net income of private firms in the forest industry. In addition, the internal transport situation is expected to improve. The combination of these two factors should provide sufficient incentive to the industry to increase output. Accordingly it is estimated that the G.D.P. from forestry will increase in 1969 to N₵95.5 million.

Policy

The objective of forestry policy is to maximise the net value added from forestry consistent with the maintenance of the forest resources. As a way of increasing considerably the value added to G.D.P. by forestry, it would be sound economic policy to process for export a greater proportion of the timber now being exported as logs. The Government therefore will encourage the industry to process logs into lumber, veneer and plywood, and to export those products instead of the logs.

In order to preserve the country's prime timber resources and to make more redwood available for processing, the Government will encourage the use of secondary species as much as possible in the domestic trade by training artisans to handle the sawn timber and by reducing the timber royalties when necessary.

At the present time some of the sawmills and the veneer and plywood mills operate at less than capacity because of a shortage of logs. The Government has taken steps, by granting forest concessions to timber operators, to ensure that the wood based industries will be provided with sufficient timber to enable them to obtain the raw materials needed for their mills. The Government, in the allocation of forest resources, will give preference to approved processing plants and to efficient logging establishments, and will also review timber concessions to ensure that supplies of timber are available to veneer and plywood manufacturers. The opening of new mills will be encouraged where these are based on integrated wood processing operations.

The main silvicultural problem is that the current rate of production of prime timber cannot be maintained after 1970 due to the depletion of the stands of these species. Therefore an increase in the rate of logging of these species would reduce the period during which the supplies of prime timber would be available. There is little likelihood of shortages in any of the other classes of timber, and the production of other species marketed could be more than doubled without exhausting the supply. Therefore a number of species now classed as secondary should be exploited for the domestic market.

The silvicultural policy adopted by the Forestry Department seeks to increase the stock and to improve the quality of the prime timbers by natural regeneration and by replanting. An area of 125 square miles is covered annually in this work and it is hoped to increase this area progressively to 200 square miles.

Two problems which are external to the industry, at present prevent forestry from contributing more to G.D.P. One is the delay which has occurred in the transportation of logs and sawn timber by rail from Kumasi to Takoradi. This bottleneck affects seriously the rate of export shipments. The other is the tax structure which includes both import taxes on essential equipment and export taxes on the product. These reduce the net income of timber operations and thereby have a deterring effect upon output. Also the structure of the export tax makes some species sub-marginal for export as logs and contributes to timber being wasted. In order to solve this problem the Government will effect the necessary improvements in transportation, and will review and revise the tax structure to remove any deterrent effect that it has on the industry.

VI—4. FISHERIES

Present situation and expected developments in 1968 and 1969

Production.—The following table illustrates the development of output of the Ghanaian marine fisheries from 1963 to 1967.

TABLE 6.1

OUTPUT OF GHANAIAN MARINE FISHERIES 1963–67

thousand tons

	1963	1964	1965	1966	1967
Canoe catch	36	43	17	25	40
Motor Fishing Vessels (M.F.V.):					
Short range	13	18	21	23	35
Long range	8	12	30	26	28
Total catch	**57**	**73**	**68**	**74**	**103**
(of which herrings)	(9)	(34)	(8)	(13)	(43)
Imports	34	20	24	25	12
Total marine landings	**91**	**93**	**92**	**99**	**115**
(of which frozen fish)	(42)	(32)	(54)	(51)	(40)

The 1967 season was exceptionally good because of an abnormally long herring season. Seven fishing vessels and two carriers originally imported by Government for the State Fishing Corporation, were turned over to the private sector, in line with Government policy announced at the end of 1966. This has already contributed to the increase in the national catch. A number of small motor fishing vessels built by the State Boatyard Corporation were added to the fleet, contributing to the catching capacity of small Ghanaian enterprises. As a result of the substantial increase in the marine catch, fish imports dropped during the year to 50 per cent that of 1966. Though exports and transhipments were stagnant at approximately 8,000 tons, for the first time Ghana approached a position of net exports in 1967.

The fresh water catch also increased substantially during the year, due to the beginning of fishing operations around Volta Lake by the local community.

In spite of the increase in the catch in 1967 the catching capacity of the industry was substantially under-utilized. Some of the vessels turned over from State Fishing Corporation to companies in the private sector joined those fleets only late in the year. Furthermore, despite an agreement signed by the State Fishing Corporation with a foreign firm in June 1967 for the management of its long range trawlers fleet, delayed action in implementing the management agreement resulted in the loss of more than 50 per cent of its catching potential. However, the State Fishing Corporation's management agreement is now scheduled to be operational shortly. This fact, and the improvement expected in the overall utilisation rate of the trawlers in the private sector, should result in a substantially larger catch by the Ghanaian long range trawler fleet in 1968 than in 1967.

The forecast of frozen fish landings for the internal market in the calendar years 1968 and 1969 compared with actual data for calendar year 1967 is as follows:—

thousand tons

	1967	1968	1969
Ghanaian fleet[1]:			
Private Sector	17	25	35
State Fishing Corporatiion ..	11	12	22
Total	28	37	57
Imports	12	3	—
Total landings	40	40	57

[1] The figures are based on the assumption that no additional long range vessel will be added to the present Ghanaian fleet in 1968 or in 1969.

Although the total landings of frozen fish, including imports, are not expected to grow during the calendar year 1968, the monthly landings of Ghanaian catch of frozen fish by the last quarter of 1968 are expected to grow by an appreciable amount. Furthermore, the long range trawler fleet is also in a position to fill up cold storage facilities installed in the country with as much as 7–8,000 tons of frozen fish in stock by the end of the next herring season, which will increase the supply during the eight to nine-month "lean season" of 1968–69 by some 900 tons of frozen fish per month on the average.

During the 1969–70 "lean season", frozen fish supplies are expected to grow further, because of a further increase in the productivity of long range trawlers, both in the private sector, and of the State Fishing Corporation. Provided that more cold storage capacity is set up in time, stocks of frozen fish caught by Ghanaian trawlers by the end of the 1969 herring season could be as much as 14,000 tons. In addition, the catching capacity of the short range motor fishing vessels is also expected to grow rather rapidly, which will increase the landings of fresh fish and lengthen the fresh fish catching season.

The size of the overall marine catch is hardly predictable, due to the highly erratic behaviour of the herring season. This element of uncertainty makes it rather difficult to plan the growth of the industry in such a way as to supply the steadily growing market entirely from Ghanaian sources in every successive year. However, the increasing number of inshore motor fishing vessel is expected to contribute to a more regular arrival of fresh fish (and particularly of herrings) than it is possible with canoe fishing only. Furthermore, the good results obtained on an experimental basis in catching herrings off season with the use of lights suggest the possibility of increasing the catch in bad years by a wide spread use of this technique by the inshore motor fishing vessels.

Another element of stabilisation in the overall supply position of the fish market in Ghana is the beginning of fishing operations on the Volta

Lake. The fresh water catch, now estimated to be about 10,000 tons per annum for the whole country, is expected to grow, because of this new feature, at a reasonably steady rate of between 2,000 and 3,000 tons per annum during the next few years.

Consumption.—The market absorbed a substantially higher quantity of fish in 1967 than during any previous year on record. The size of the increase was of over 15 per cent. This is partly explained by the exceptional length of the herring season, and the definite preference of Ghanaian consumers for fresh rather than frozen fish. However, it also illustrates the high absorptive capacity of the market as a whole.

By the end of December 1967, fish in stock at the cold stores had reached a peak figure of over 10,000 tons. Some vessels were actually forced to store their catch on board for lack of space ashore. Despite continuous landings by the Ghanaian long range trawler fleet, this figure dropped to less than 800 tons by the end of April. Frozen fish prices, which were somewhat depressed at the end of the year, were under upward pressure during the second quarter of 1968.

While the Ghanaian market is characterized by the capacity to absorb suddenly rather large additional quantities of fresh fish, particularly of the preferred varieties, the long-run rate of growth of demand is estimated not to exceed 6 to 7 per cent per annum at the prevailing level of prices. This projected rate of growth is based on the assumption that improved distribution facilities for spreading sales inland will be set up in time. Larger sales could only be achieved by substantial price cuts which, given the present cost structure of the industry, are not likely to be possible for quite some time.

The Government forecasts that the increase of monthly arrivals of frozen fish by the end of 1968 should be sufficient, barring exceptionally bad herring seasons, to supply the market demand during the Plan period, and therefore, no need should arise for foreign exchange expenditure on imports of fish.

Exports.—Prospects for increasing exports, though not very definite yet, do not appear to be discouraging. While the main export catch is still in the hands of foreign firms operating from Tema under a foreign flag, it is hopeful to record some renewed interest on the part of private Ghanaian enterprise for tuna fishing for the export market. Furthermore, research conducted by the Government, as well as by some private investigators, on shrimp banks along the Ghanaian coast has met with some initial success. The possibility of supplying the export market with high value species caught as a by-product of fishing for the average varieties sold on the local market should also be mentioned. Prospects for a marginal increase in exports, however, although welcome, should not overlook the basic fact that the cost structure of the industry makes it difficult for fish exports to compete on the international market.

Cold Storage and Distribution.—Cold storage facilities need substantial expansion in view of the expected increase in the marine catch, and in particular the substantially higher rate of monthly landings of frozen fish by the Ghanaian fleet expected towards the end of 1968.

At the end of 1967, the total cold storage capacity installed in the country was about 9,500 tons (excluding small depots), and was almost entirely concentrated in the Tema-Accra area. This capacity was clearly inadequate, considering that between 1,000 and 1,500 tons of space is occupied throughout the year by export catch (tuna), and that all fish distributed inland and along the coast must pass through these facilities.

The situation at Tema has improved considerably in 1968 with the completion by a private firm of a new cold store of 3,000 tons capacity. Another unit, with a capacity of 1,000 tons, is also under construction. However, an adequate solution to the problem will be achieved only with the installation of cold storage facilities at a new fishing harbour, to be installed in the Sekondi-Takoradi area, and with the setting up of some sizeable capacity at Kumasi.

The following table shows the capacity of cold storage facilities at various points in Ghana and the expansion planned in 1968 and 1969:—

TABLE 6.2

COLD STORAGE CAPACITY 1967, 1968 AND TARGET FOR 1969

tons

	End 1967 (*Actual*)	*End* 1968 (*Forecast*)	*End* 1969 (*Target*)
Tema	7,200	11,200	11,200
Accra	1,800	1,800	1,800
Kumasi	300	300	1,500
Sekondi-Takoradi	—	—	2,000
Tamale	—	—	500
Total	9,300	13,300	17,000

Several private and State Fishing Corporation's projects are under consideration to fulfil the expansion programme. The advantages of licensing industrial smoking in the private sector, with a view to reducing inland distribution costs, is also under consideration of the Government.

Operational Difficulties.—Last year's favourable production performance was not achieved without difficulties. Facilities at Tema Harbour were congested at the height of the herring season, cold storage facilities were inadequate to cope with peak demand, and the distribution cost of frozen fish to inland points was quite high.

One of the main causes of congestion at Tema was that the newly constructed fish market was not operational. Action has been taken to see that the market will be opened and properly managed.

The need for opening up a new fishing harbour in the Sekondi-Takoradi area is well established, in terms of relieving the peak season congestion at Tema, of improving the inland distribution of frozen fish, and of facilitating the operations of short-range motor fishing vessels by providing an adequate basis for them within reach of their good fishing grounds. The Government is considering various solutions to this problem, which urgently requires attention. Plans for cold stores in that area cannot be finalised, until a decision has been taken with respect to the specific location of the new harbour facilities.

The Government is aware of the lack of trained Ghanaian officers to man the fleet of long range-motor fishing vessels. This is a severe handicap to reducing operating costs, and therefore the wholesale prices of the marine catch. The Government is actively considering the installation of a training school as part of the newly established Nautical College at Nungua.

Policy Issues and Investment Programme

The broad production strategy to be pursued by the Government will follow two general lines:

—The catch of frozen fish will be increased by raising the productivity of long range trawlers now operating under the Ghanaian flag, rather than by increasing the size of the fleet. At the same time, an effort will be made to boost the catch of fresh fish and to upgrade small Ghanaian fishing concerns by making available to them an increasing number of short-range motor fishing vessels of improved design and on better financial terms.

—The Government's policy will be to reduce production costs of the industry as a whole, including both catching and distribution. To do, so additional landing facilities along the coast for the motor fishing vessels will be provided, investment in more cold storage facilities inland will be promoted and Ghanaian officers will be trained to take the place of expatriates now manning long range trawlers.

The Government's programme for the fisheries sector over the next two years can be summarised as follows:—

(i) Ghanaian fishing enterprises will be protected. While the internal market should retain its present competitive character, imports of fish will be restricted to actual emergency requirements.

(ii) The State Fishing Corporation will be reorganised. Accounting consultants will be appointed to work out the Corporation's balance sheet, with a view to determining the size of Government's equity contribution which will enable the State Fishing Corporation to operate as a sound commercial venture, and to end its claims on the Development Budget.

The Corporation will concentrate its efforts on distribution and wholesale marketing, and on the expansion of cold storage facilities inland; retail shops will be turned over to private operators wherever possible. There will be no addition to the long range trawler fleet of State Fishing Corporation during the Plan period.

(iii) Cold storage facilities will be expanded, both at landing points and inland. The licensing policy in this field will be to increase competition among owners of these facilities.

(iv) The fish market in Tema will be put into operation, on a priority basis, under a special management arrangement. There will be control by means of a fair representation of all interested parties which will guarantee its smooth functioning as an open wholesale market.

(v) Adequate landing facilities for motorised vessels will be installed in the Sekondi-Takoradi area.

(vi) Special attention will be given to the upgrading of small Ghanaian enterprises. For this purpose, a new hire-purchase scheme for the sale of boats built by the State Boatyard Corporation will be worked out, and funds made available to the Agricultural Development Bank to finance these sales. Foreign exchange will be made available in full to meet the import requirements if State Boatyard Corporation. New more efficient boat designs will be worked out and, for this purpose, a new technical management will be appointed.

(vii) A project will be worked out to cover the construction of the new landing facilities and the financing of the hire-purchase scheme mentioned above with a view to obtaining international financial assistance.

(viii) The present assistance to canoe fishing for the motorization programme will be continued.

(ix) A school to train officers of fishing vessels will be established at Nungua;

(x) Fisheries research activities will continue to be supported with funds and personnel as required. This applies to programmes both for marine and Volta Lake research. Special attention will be given to the investigation of shrimp banks.

(xi) The present programme of pond building and artificial insemination of inland waters will be supported.

Fixed investment in the Fisheries Sector from the Public Sector will be quite small in 1968. This is due, on one hand, to the large amount of public investment made in previous years, and, on the other, to the expectation that private enterprises will provide a large portion of additional investment required. Public funds will be made available to the

Agricultural Development Bank to finance the hire-purchase schemes of the State Boatyard Corporation. To ease current bottlenecks, funds will be provided to render the Fish Market at Tema operational, and to put into effect small improvements schemes at Elmina, and at two other small harbours. The main feature of the 1969 public investment programme will be the establishment of fish landing facilities on the West Coast.

Private enterprise is expected to finance a large portion of the expansion of capacity required in the field of Cold Stores and ancillary facilities, and the entire addition to the fleet of fishing vessels.

VI—5. MINING

In recent years, physical output of the mining sector has gradually declined. The decline has been brought about by the reduction in output of gold and diamonds.

TABLE 6.3

INDEX OF MINING PRODUCTION (EXCLUDING QUARRYING)

1962 = 100

	1962	1963	1964	1965	1966	1967
Mining	100.0	98.7	98.8	97.3	98.4	95.8
Gold	100.0	103.7	97.3	85.0	77.1	85.9
Diamond ..	100.0	83.5	83.2	70.9	87.9	79.1
Manganese ..	100.0	107.3	121.8	159.2	152.1	131.4
Bauxite	100.0	129.2	102.9	127.1	144.9	144.3

In terms of value, however, the 43 per cent devaluation of mid-1967 resulted in a significant rise in the cedi value of gross output—almost all of which is exported—and even more in the value added by industry. Value added in 1967 indeed appears to have risen by about 20 per cent bringing the mining sector's contribution to Gross Domestic Product to—about N¢49.0 million or 3 per cent of Gross Domestic Product. Employment in the mining sector, about 37,000 people, is less than 2 per cent of the labour force. Nevertheless, the sector makes a major contribution to the economy since it is the second largest foreign exchange earner, after cocoa, exports amounting to N¢53.7 million (post-devaluation) in 1967.

The structure of the sector is indicated by the following table:—

TABLE 6.4

VALUE ADDED AND EXPORTS IN MINING 1967

N¢ million

Minerals	Value Added	Exports
	Current prices	
Gold	15.7	21.2
Diamond	15.8	12.6
Manganese	9.4	9.2
Bauxite	1.7	1.6
Salt	2.3	N.A.
Quarrying	4.1	N.A.
Total	49.0	44.6

As discussed below physical output is likely to show a significant overall rise in 1968, expansion in some branches being compensated by a contraction in manganese. However, a full year's impact of higher cedi export values following devaluation can be expected to increase value added by a further 20 per cent or more. For 1969, it is expected that further contraction in manganese will be more than offset by expansion in other branches leading to a 5 per cent increase in overall output and value added. This yields the projection in the data shown below for the sector's net output and exports. The export total for 1968 is somewhat enlarged by allowance for reduction of stocks built up during 1967.

	1967	1968	1969
	N¢ Millions (Post-devaluation)		
Value Added	60.0	60.0	63.0
Exports	53.0	65.0	67.0

Gold.—The devaluation gave considerable impetus to gold mining as it helped the profitable enterprise, Ashanti Goldfields, and assisted the State Gold Mining Corporation, which was running at a loss, to make a small profit. An increase in physical output can be expected from both enterprises. In addition, gold mining will be assisted by the recently established two-tier system of gold prices under which gold is likely to fetch a higher price than $35 per ounce. Under the circumstances, it is expected that Ashanti Goldfields will proceed with its programme of new investment.

The only sizeable enterprise in the mining sector which is under public ownership is the State Gold Mining Corporation. The Government approved a three-year development programme for the Corporation, for fiscal years 1966–67, 1967–68 and 1968–69. The total cost of the programme was N¢7 million. Of this total amount N¢2,751,000 remains to be released in the 1968–69 fiscal year under the development budget.

The Corporation has by now completed about two-thirds of its three-year development programme. Some of the Corporation's mines are still not profitable, mostly because of the depletion of ore reserves. The Government will commission a feasibility study of the Corporation's mines; the policy for these mines will depend on the evaluation of the feasibility reports.

Diamonds.—In terms of potential investment and output diamond mining could be most encouraging. More could be produced by the existing companies, smuggling could be reduced, and a large-scale dredging operation could be established if the marketing system were rationalized. If a satisfactory solution can be found to the marketing problem, a substantial increase in diamond production can be expected.

In addition to land mining for diamonds a large-scale dredging operation is being proposed in the Birim River. This project is now being examined carefully. The Government intends to explore the desirability of establishing a joint state/private company for diamond dredging.

In addition to any production by the proposed company, additional production can be expected by diggers who will, in future, be effectively supervised by the Mines Department.

Manganese.—Manganese production and exports have decreased annually since 1965; further reduction for the year 1968 and 1969 can be expected. These reductions are due both to the depletion of reserves and to the declining grade of the manganese. Because of the decline in the grade of the manganese, the fall in export value will exceed the fall in export volume. A 4 per cent reduction in the value of exports in 1968 from that of 1967, and a large reduction of about 25–28 per cent from 1968 to 1969 can be expected.

The current output consists of high grade oxide and low grade carbonate with a market value of about 50 per cent of the oxide. The oxide ore reserves are very limited. In 1967 the African Manganese Company drew up a five-year plan under which the oxide reserves would be depleted by mid-1972. It is anticipated that oxide production in 1968 will be about 360,000 tons, in 1969, 290,000 tons and in 1970, 240,000 tons.

Carbonate ore production is likely to be about 85,000 tons by 1969, rising to 240,000 in 1972. This level of carbonate production could probably be maintained for a decade after 1972.

Bauxite.—Bauxite exports represent only a fraction of the sector's output, however in percentage terms an increase of almost 40 per cent over 1967 levels can be expected in 1968. If an alumina plant were opened in Ghana a completely different level of bauxite production would become possible. The Government will commence discussion with interested parties to this end.

Oil.—A new development on the mining scene is that during 1968 a number of private companies have shown interest in exploring for oil. Up to early 1968 the Roumanians were drilling for oil on behalf of the Government. Two wells drilled in the Volta Region disclosed the existence of oil bearing strata. The Government in May 1968 granted licences to ten firms to undertake prospecting for oil in 27 blocks, primarily along the coast. At this stage, it is difficult to estimate how much the companies are likely to invest during 1968 and 1969. In terms of policy, the Government will establish standard arrangements to award concessions and to levy taxes on any oil which may be found in commercial quantities.

Quarrying.—Major trunk roads linking Accra, Kumasi and Takoradi are under consideration. In selected areas along these roads, roadstone quarries could be opened up in advance of the actual construction. Quarrying is a labour intensive activity and the industry, if expanded, could provide employment for several hundred labourers over the next few years in the Ashanti, Western and Eastern Regions. The Government will investigate the feasibility of this approach and will support it if it proves to be economic.

Policy Issues

In the mining sector, the Government will set forth policies designed to reverse the presently declining trend in output. These policies will include the following five points:—

—to strengthen the Geological Survey's efforts in determining the country's mineral wealth;

—intensive prospecting for new gold bearing ore bodies and the development of ore reserves in existing gold mines;

—improved methods of winning diamonds, such as dredging;

—standard arrangements for the award of concessions to private companies interested in prospecting for oil in the country will be established;

—the current diamond marketing procedures will be reviewed so as to make them more efficient.

The Geological Survey is charged with determining the mineral wealth of the country, and in particular with discovering deposits of ores and other minerals which exist in commercial quantities. The information is subsequently made available to potential investors in the mining sector.

The Geological Survey at present has the following projects under way:—

(1) prospecting for bauxite in the Kibi and Ejuanema areas,

(2) limestone prospecting at Nauli for use in the manufacturing of lime and cement, and for kaoli in both the Saltpond and Kibi areas for use in a potential ceramics industry,

(3) prospecting for alluvial diamond and gold.

The bulk of the country's gold, diamond and manganese deposits are located in the south-west section of the country. During the Plan period the Government will undertake geophysical, photographic and on-the-ground investigations over an area of 14,000 square miles, mainly to prospect for gold and diamonds. The Government is seeking external assistance for three separate projects in this investigation. In addition, the Geological Survey will undertake an aeromagnetic study of a 43,000-square mile area comprising the Northern, Eastern and Central, Ashanti and Brong-Ahafo Regions. The purpose will be to confirm indications of the existence of deposits of phosphates, industrial salts and iron ores, and to locate water.

It is also the Government policy to encourage the mining of lower grade ores; therefore, future policy will be aimed at providing a tax structure consistent with this objective. Such mining would result in proportionately higher employment because working the lower grade deposits is generally a more labour intensive operation. It would also increase exports.

Early in 1968 the Government appointed a three-man Committee to examine the Diamond Marketing Corporation with a view to recommending changes in its procedures so as to make them more efficient. The Committee reported in early April 1968 and suggested modifications in the marketing arrangements. The Government has the recommendations under review and will issue its new policy before long.

In the past few years there has been a lack of new investment by the mining companies and a sharp reduction of the diggers' production. Ten years ago diggers accounted for about 60 per cent of all diamonds produced; by 1967 their share dropped to about 10 per cent. It is the Government's expectation that the rationalisation of the diamond marketing arrangements will encourage the mining companies to invest, thus enabling them to produce and export more diamonds. The recommended arrangements will also reduce the diggers' incentive to smuggle, and encourage them to sell their diamonds through the Corporation, thus, increasing Ghana's foreign exchange earnings.

The possible closing down of some of the mines of the State Gold Mining Corporation and the expected reduction in the output of the African Manganese Company could lead to some unemployment among miners. A proposal to expand quarrying in connection with the Kumasi–Takoradi and Accra–Kumasi roads may go a long way towards absorbing the unemployed labour.

VI—6. CONSTRUCTION

It is estimated that construction constitutes roughly 60 per cent of all investment in physical assets in Ghana and employs approximately 100,000 workers. As indicated in the Employment Section of the Plan the decline in construction work during the consolidation period has contributed considerably to the unemployment from which the country is suffering. A significant characteristic of the construction industry is that it requires large amounts of foreign exchange for the import of finished materials and of plant; locally produced fuel and materials also have a sizeable foreign exchange component.

Large investments were made in the construction sector prior to 1966, and a good deal of equipment was brought into the country. However, much of this equipment has not been in use for quite some time, due to lack of spares and maintenance. In addition, different makes of equipment were imported from various sources. This fact made maintenance more difficult and led to problems over the cost and availability of spare parts. Because of these features, the growth of the sector forecast during the Plan period is not likely to be achieved as cheaply as would have been the case if equipment were standardised. It is expected that the output of the construction industry will increase by about 15 to 20 per cent over the Plan period. In the public sector, well over half of the Development Budget will be spent on construction work. The details of development expenditures can be found under the appropriate sectors (transport, housing, health, etc.). These development expenditures are expected to increase by about 25 per cent over the Plan period. In the private sector, it is expected that there will be a slight increase in demand during the Plan period. There will be fewer large projects than in the past. However, there are indications that there will be increased private investment in medium-sized factories, and there is the prospect of more commercial and residential construction.

Operational Problems and Development Policies

(i) *State Construction Corporation.*—The State Construction Corporation currently suffers from several problems. The Corporation has grown to an unwieldy size, and this causes complex management difficulties. Its financial position is unsatisfactory due to recurrent losses largely caused by the necessity of retaining excess labour on its pay-roll. While a quick solution to this problem cannot be expected, the switching of personnel to private contractors, where this would lead to greater efficiency, will be encouraged.

At present the State Construction Corporation's equipment consists of many different makes and a large part of it requires rehabilitation. Standardisation and rationalisation is already in progress and when completed will lower operating costs and lessen the problem of spares. Foreign exchange cover will be provided for the imports involved. With a smaller number of makes of equipment, the State Construction Corporation itself will be able to stock more of the spare parts it requires, and hence achieve significant savings. After the rehabilitation programme has been completed, the State Construction Corporation is likely to

have a surplus of equipment. It is inten ed to sell this surplus wherever possible, to the Public Works Department and to the smaller Ghanaian contractors. The Government intends to support the Corporation in its effort to reorganise, and to improve its financial position.

(ii) *Other Contractors.*—Ghanaian private construction firms will be helped to take over an increasing number of jobs. The Public Works Department will reclassify contractors according to merit and potential for growth. A scheme to finance the rehabilitation of contractors' equipment and to promote the growth of the economically viable units will be worked out in co-operation with private banks.

Most of the largest contractors operating in the country have adequate capacity in terms of equipment, and at present have fairly large liquid funds. They are, therefore, in a position to undertake all the work that will be offered to them.

(iii) *Materials.*—During the Plan period there will be adequate capacity for the production of most locally produced construction materials. Cement consumption which in 1967 was about 430,000 tons, is expected to rise to 500,000–520,000 tons per annum by the end of the Plan period. By mid-1968 installed capacity was 560,000 tons a year for the Tema and Takoradi plants combined. Capacity installed in aluminium roofing is also adequate. The foreign exchange cost of producing locally materials traditionally used by the construction sector, is extremely high. It is therefore important that more use be made of essentially indigenous materials, such as clay, lime, timber and laterite.

(iv) *Development Administration.*—A major problem faced by most Government Departments in the implementation of projects involving large scale construction work is the limited capacity of the Public Works Department design section. Steps will be taken to increase the staff of Public Works Department, so as to enable it to service adequately the design needs of other Government Departments. The Government will also take steps to eliminate the delays which often occurred in the past in making payments to contractors, and will streamline the administrative procedures leading to the implementation of construction projects.

Present situation and prospects for 1968 and 1969

During the stabilisation period, considerable progress has been achieved in expanding industrial production. After a rapid increase in 1966—which partly reflected recovery from the very depressed conditions—a further substantial growth was achieved in 1967. This occurred despite limitations imposed by shortages of raw materials and spares. For the manufacturing sector as a whole, excluding Valco,[1] and based on returns for firms employing thirty people or more, value added increased about 24 per cent from 1965 to 1967. For all establishments, the overall expansion was probably slightly lower. By 1967, large- and medium-scale manufacturing firms excluding Valco were contributing about 5.6 per cent of the value of the country's total output compared with 4.3 per cent in 1965. The addition of value added by Valco and by small-scale industry would raise the contribution of the manufacturing firms to approximately 7.4 per cent in 1967.

Table 6.5 provides rough estimates of the growth of selected industries:

TABLE 6:5

VALUE ADDED IN MANUFACTURING

(FIRMS OF 30 OR MORE EMPLOYEES)

	1965	1966	1967	1967	
	(Indices in constant prices)			*NC'000 (current prices)*	*Share (%)*
Total Manufacturing ..	100	117	124	97,968	100
Selected Industries					
Food (excluding Cocoa and Cocoa butter.)	100	89	141	4,037	4.1
Beverages	100	116	103	13,960	14.2
Tobacco	100	103	101	17,701	18.1
Textiles	100	154	332	10,886	11.1
Garments	100	166	333	4,108	4.2
Footwear	100	56	55	688	0.7
Timber and Paper	100	103	83	16,922	17.3
Chemicals and Pharmaceuticals	100	147	154	8,485	8.7
Metals	100	114	141	4,466	4.5

[1]. Valco is excluded from the data as it performs an essentially processing function on foreign-owned materials for re-export. The value added in processing is, however, included in the totals for industry in Table 3.1.

A major impetus to the overall growth of manufacturing clearly comes from textiles and allied trades, for which value added more than trebled. Metals, chemicals and pharmaceuticals, showed increases of about 50 per cent but the important timber and paper industry fell by between 15 and 20 per cent.

As a consequence, the shares of different industries in manufacturing changed substantially during the stabilisation period. For large and medium-sized establishments, the proportion contributed by timber and paper fell from about 25 per cent in 1965 to a little over 17 per cent in 1967. A decline also occurred in the share of beverages, tobacco, and footwear. By contrast, the share of textiles and garments rose from a little over 5 per cent in 1965 to over 15 per cent in 1967.

The degree of domestic processing in manufacturing is broadly indicated by the ratio of value added to gross output. For textiles, this ratio rose substantially during the stabilisation period. However, for manufacturing as a whole the ratio remained stable in the 55–60 per cent range due largely to the decline both in the ratio and overall contribution of timber.

As in other developing countries, employment in manufacturing has been rising at a much lower rate than output. Following an increase of about 6 per cent in 1966, employment in establishments of thirty or more people showed virtually no further increase in 1967. This overall picture, however, conceals a considerable shift in the labour force. Employment in textiles and allied trades increased significantly but this was offset by a fall of about a quarter in timber and paper and smaller reduction in several other sectors.

TABLE 6.6

EMPLOYMENT IN MANUFACTURING

(FIRMS OF 30 OR MORE EMPLOYEES)

	1965	1966	1967	1967	
	(Indices[1])			*Number Employed*[1]	*Share* (%)
Total Manufacturing ..	100	106	106	39,592	100.0
Selected Industries:					
Food (excluding cocoa and cocoa butter)	100	114	146	1,565	4.0
Beverages	100	102	110	2,210	5.6
Tobacco	100	87	85	1,398	3.5
Textiles	100	134	183	3,968	10.0
Garments	100	132	166	1,690	4.3
Footwear	100	89	97	520	1.3
Timber and Paper ..	100	95	76	12,981	32.8
Chemicals and Pharmaceuticals	100	109	110	2,704	6.8
Metals	100	95	97	1,799	4.5

[1]. Yearly average based upon monthly data.

A comparison of these production and employment trends indicates that significant changes in output per worker are occurring. With the main exceptions of footwear and beverages, productivity appears to have increased in all industries, the average improvement being 17 per cent over the two years. This considerable increase in productivity is consistent with available information indicating better utilisation of capacity and more economical use of labour as production increased. In textiles and allied trades, where additional capital investment enlarged the degree of processing, value added per worker appears to have almost doubled. In metals, excluding Valco there was an increase of 50 per cent.

A further change in the structure of industry has been brought about by the coming into operation of several state and joint enterprises. The share of the purely private sector in value added by large and medium enterprises has fallen from about 80 per cent in 1965 to under 70 per cent in 1967. The inclusion of small firms, which contribute an estimated 30 per cent of total manufacturing output, would, however, give a higher percentage for the private sector.

Prospects for 1968 and 1969

In a few areas of manufacturing such as sheet glass, footwear, aluminium roofing, domestic utensils and to a lesser extent timber processing inadequate domestic demand has limited production significantly during the period of stabilisation. In general, capacity utilisation remains well below desirable standards and probably averages not much more than half of normal production capacity.

Only in isolated cases such as brewing have capacity limits been reached. In parts of the small but rapidly growing food processing section, lack of domestic raw materials has been a serious constraint.

The major bottleneck in expansion of industrial output has undoubtedly been shortage of imported supplies. Raw materials imports have been well below requirements. Shortages of spare parts and complementary capital goods have disrupted production schedules, though progress has been made in easing the situation as regards spare parts since the introduction of Open General Licences in 1967. Moreover, uneven timing of licences and administrative problems arising from the difficult balance of payments situation have complicated forward planning of production and caused unanticipated stoppages. Special problems affecting the output of the public enterprise sector are considered below.

The prospects for 1968 continue to be dominated by the problem of imports although the problem of inadequate demand shows signs of becoming more important for some sectors. The projections for overall imports indicate only a slight increase for 1968 and a more substantial one for 1969. Within the overall totals, however, increasing emphasis will be placed on raw materials for industry so as to permit an increase of about 10 per cent in these, about the same as in 1967. Moreover, there is some indication that the timing of imports in 1967, when licences were delayed, resulted in somewhat higher stocks of raw materials at the end

of the year than as at the end of 1966 when stocks were particularly low. While this was one of the reasons for industrial output growing less in 1967 than 1966, it also improves the prospects for 1968.

The greater degree of processing now being achieved within the country and the expected more rapid growth of industries with relatively high value added as compared with imported raw materials further improve the prospect for 1968. Basic textile processing, in particular, is expected to expand rapidly as compared with garment finishing. Accordingly a given value of imports should result in a progressively high value added within the country.

On the demand side, market limitations are expected to become more evident in parts of the metal fabricating chemicals and pharmaceuticals and food industries.

When these factors are taken together and the input requirements for the various industries are examined, it appears that industrial output should grow in volume by about 10 per cent in 1968. The food and textile groups, together with beverages and tobacco, contributed nearly half of value added in 1967 and absorbed about a third of available raw material imports. With substantially higher aid the share of these groups in both imports and output is expected to be appreciably higher. Even after allowance for a temporary level of full capacity in brewing, the rate of growth for this group of industries in 1968 could exceed 20 per cent. For textiles in particular the current level of imports of finished cloth and other finished textile goods, grey cloth and yarns (N¢10.5 million, N¢2 million, and N¢5.4 million respectively in 1967) indicates that substantial further growth is possible before demand for basic textiles is satisfied by domestic production. In the remainder of the manufacturing sector, a smaller growth is generally anticipated particularly in those areas where demand in 1967 was already becoming a restricting factor.

The further easing of import restraints should accelerate the rate of growth of manufacturing in 1969. An expansion of at least 12 per cent is anticipated for this year.

Capacity in manufacturing is expected to continue to be adequate for the growth assumed during the Plan period. By the end of the period, however, the problems of the balance of available capacity in relation to demand in the major growth areas are likely to become increasingly important and a continuation of overall growth of manufacturing output at the rate expected in the Plan period will undoubtedly require a higher level of new investment.

A considerable increase in the processing value of Valco operations will also occur during the Plan period. Following the start of operations during 1967, the tonnage of aluminium produced is expected to more than double in 1968 to around 115,000 short tons with a corresponding rise in the processing value. Since this is the capacity level for the present stage of smelter development and no new pot-line is expected to be in operation before the end of the Plan period, a similar level of output can be assumed for the rest of the Plan period.

A more rapid increase in employment in industry is anticipated over the Plan period than during the period of stabilisation. Further expansion of production is likely to require relatively greater increases in labour force. An overall increase in manufacturing jobs of over four per cent per annum may be attained during the next two years.

Investment.—The general policy on use of resources and their availabilities for investment has been outlined in chapter III. A small increase in private investment is projected in 1968. Within the total, however, the policies being followed give priority to directly productive investment and should ensure a higher proportion for the manufacturing sector. By 1969, a further rise of 20 per cent projected for private sector investment should allow for a more marked expansion in investment in manufacturing.

Enquiries into the investment intentions of a large sample of the bigger firms indicate that there would be a marked expansion in investment in manufacturing if foreign exchange could be made available. Indeed, planned investment in 1968 indicated by the sample of firms, could well be double the actual investment in 1967, and would exceed substantially the foreign exchange that can be made available for investment while ensuring approved supplies of imports for existing manufacturing capacity. Much of the planned investment for 1968 is thus likely to spill over into 1969 when the improved foreign exchange position should permit more liberal import licensing.

Enquires to the National Investment Bank and Capital Investment Board indicate that there is a demand for the establishment of new firms. Projects under consideration by National Investment Bank include dry cell batteries; recombined evaporated tinned milk; cable and wire mill; ceramics; asbestos cement sheets; aluminium processing complex; office supplies manufacturing; packing material complex; chemical in the fields of fertilizers, caustic soda; and dicalcium phosphate.

Several new private industries commenced production in early 1968. They include firms in the fields of textiles, tobacco production, flour milling. In addition, joint state/private firms are to be commissioned during the Plan period in textiles and rubber tyres.

Preliminary studies have been carried out in several fields by the Ministry of Industries in order to commence assessment of development possibilities in manufacturing. Areas which appear to warrant further, more detailed, examination include:

Food and allied industries—fish and meat canning and smoking, rice and corn milling and starch manufacture.

Textiles and related products—cotton sewing thread and yarns, knitted goods, surgical cotton and sanitary towels, ropes, twine and cordage and fishing nets.

Wood—veneers, plywood and blackboard. Household, office furniture and KD furniture for export. Chipboard.

Chemicals and related products—soap and detergents, building lime based on local materials, and bitumen.

Non-metallic minerals—drainage pipes, based on local materials.

Important additions are expected in textiles and tobacco and for the small food processing group. The demand constraint and other difficulties previously noted in timber, paper and metals are reflected in a contraction in planned investment as compared with actual investment in 1967 in these groups.

Industrial Policy

The guiding principle of government policy in the manufacturing sector is to stimulate production so as to increase the domestic contribution to output and also assist in alleviating the basic employment and foreign exchange problems of the country. Priority will be given to ensuring economic use of existing capacity before making additions. And installation of additional capacity will be encouraged where adequate supplies of materials can be assured.

From the longer-term point of view, an important objective is also to increase the managerial and technical capacity of the country. There are small-scale industries which are economically viable but are held back by institutional difficulties. These offer promising areas for government to promote entrepreneurship. It is also a fundamental aim of industrial policy to secure increased Ghanaian participation in the management of expatriate companies in co-operation with the managements concerned.

In conformity with the broad objectives of development of the country, the private sector must be encouraged to make its full contribution to growth. Overriding national interest and general objectives of improving income distribution may lead to policies aimed at regulating industrial development, but it will be the objective of government policy to minimise detailed controls, avoid arbitrary decisions and foster close co-operation with the private sector.

To attain these objectives, it will be necessary to improve further the import licensing system. Guidelines for the allocation of import licences will be provided by broad sectoral allocations within foreign exchange budgets. Raw material licences will be allocated first on an industry by industry basis, then on individual firm by firm basis according to industrial priorities. In the allocation to individual firms, consideration will be given to current capacity potential and extent of local processing. Priority will be given to exporting firms and firms producing for the domestic market with low import content. In view of the shortage of foreign exchange, misuse of allocations will be considered grounds for withdrawal of import privileges.

A more extensive and deeper investigation is to be made into the fields in which new industries or additions to capacity could make the greatest contribution to the development of the economy. In particular, increasing emphasis in industrial development policy will be placed on export possibilities and import saving especially where this stimulates local production of raw materials such as in the field of food processing.

In accordance with the objective of stimulating small enterprises, further development of industrial estates is envisaged. The provision of additional credit and training facilities also forms part of government

industrial policy. During the period of the Plan basic studies will be completed with a view to preparation of a comprehensive programme for the development of small industries.

Adequate incentives for industrialisation are required that take into account the relationship of capital and labour appropriate to the country. At the same time it is necessary to avoid monopolistic practices. A fine balance of taxes, tax concessions and protective duties is needed. It is recognised that the present situation in these respects may not fully reflect the current needs of the country. A review will be made of the present structure of taxes, tax concessions and duties and other protection affecting industry.

Finally, the government will institute wider consultations with the private sector. In certain cases where specific bottlenecks are holding up production, high level *ad hoc* joint committees will be formed to find solutions to the problems. Regular consultation with industrial organisations will be held, where appropriate, on a formalised basis.

Institutional arrangements for implementation

(*a*) *Ministry of Industries.*—Since no new major industrial projects will be undertaken directly by Government during the present plan period, the Ministry's attention will be mainly directed towards ensuring improved utilisation of existing capacity and setting the stage for future expansion. In the case of existing industries, studies will be made into production and marketing problems and appropriate solutions suggested. Necessary checks will be instituted to eliminate abuses of import licences and other malpractices through regular on-the-spot investigations by the staff of the Ministry.

The small-scale industries division of the Ministry of Industries will be re-organised and strengthened to handle the programme of small-scale industries development and special schemes for promoting Ghanaian business enterprises.

(*b*) *National Investment Bank.*—The main function of the National Investment Bank is to promote, finance and assist enterprises in accordance with the priorities and objectives of the country's economic development. The Bank generally confines itself to directly productive investment as distinct from infrastructural investment and its participation in enterprises is intended to be passed on to private investors as soon as practicable.

During this Plan period, the National Investment Bank will continue its policy of analysing and reviewing the economy with a view to presenting potentially viable investment opportunities to investors. It will strengthen its technical staff for this purpose. The infusion of foreign exchange investment and good management practices from abroad will be encouraged in those areas where present Ghanaian financial resources and management expertise are limited. The Bank will also continue to make available its specialised services and assistance under its "client service", to all entrepreneurs.

In its loaning operations, the Bank will encourage the growth of Ghanaian business. It will also encourage increasing Ghanaian participation in the projects it finances with a view to helping to broaden local ownership of enterprises in Ghana. The Bank will readily consider new projects identified and proposed by individuals and agencies outside the Bank, whether for the purpose of advice and encouragement only or for possible financial participation by the Bank.

(*c*) *Capital Investment Board.*—The main functions of the Capital Investments Board are to promote and encourage private investment in Ghana. The Board grants approval for capital investment, and recommends to the appropriate authorities the granting of special concessions under the Capital Investments Act to duly qualified investors.

Present procedures for approving and licensing new investments tend, however, to result in unnecessary duplication among Government agencies. To alleviate this problem, the offices of the Capital Investments Board will be organised as a National Investment Centre to which the new investment enquiries and proposals will be directed. The Board will also maintain close contact with all relevant government agencies and work out with them an effective clearing system to simplify and expedite licensing procedures.

The changes envisaged in the system of approving new projects do not in any way nullify the present requirement that existing operating companies should secure recognition from the Ministry of Industries and be registered with the Registrar-General of Companies before their applications for grant of special concessions under the Capital Investments Act are considered.

In approving new projects, the Capital Investments Board will ensure that foreign enterprises are not allowed into fields of business specifically reserved for Ghanaians. It will also ensure that at least 40 per cent of share capital is held by Ghanaians in schemes with less than N₵200,000 fixed capital investment. Particulars of approvals will be published at regular intervals.

(*d*) *National Standards Board.*—The newly established National Standards Board will be entrusted first with the duty of establishing standards of quality and then of ensuring that all domestic products meet these standards. During its initial stages the Board will work mainly through a small number of Technical Committees in Food, Building and Construction, Electrical and Electronics, Drugs, Textiles, Leather and Cosmetics. The Board is being provided with its own testing facilities and its technical staff will visit factories periodically to check, or to obtain test samples, on the quality of products manufactured domestically. It is the Government's intention to publish Ghana standards on several products during the Plan period.

State Manufacturing Enterprises

The pivotal role accorded industrialisation by the previous regime and the primary importance assigned to the public sector has left the

Government currently operating nineteen manufacturing enterprises, comprising twenty-nine plants. It is clear that the implementation of the policy left much to be desired quite apart from the question of whether such emphasis on the industrial sector was justifiable at that stage in Ghana's development.

In many cases, no feasibility studies were made and often even the most basic survey of potential markets and raw material supplies was omitted. Political rather than economic considerations appear often to have determined siting of plants; much of the construction was carried out without adequate Ghanaian participation or supervision. The managerial requirements of many of the firms were not provided for and reliable operating and financial records were not kept. As a result, the public manufacturing sector is highly diverse not only in terms of product but also in terms of profitability and viability, size, technological complexity and significance for development.

Some of the more general problems can be summarised as follows:—

(*a*) The book value of the corporations is often well above the current commercial and economic value. Among the larger enterprises, this discrepancy is most marked in glass, footwear, and food processing.

(*b*) Excess capacity in relation to size of the domestic market is common. This is most evident in the sheet glass, and food processing industries.

(*c*) The short-term working capital position is often inadequate by normal commercial criteria. In the glass, brick and tile and vegetable oil industries, the ratio of current assets to current liabilities is well below commercially acceptable levels. In other firms, the valuation of inventories makes an apparently adequate ratio questionable. Several of the firms are accordingly chronically short of working capital.

(*d*) The existing long-term indebtedness of the group amounting to approximately NȻ30 million as at December 1967 involves very heavy servicing requirements of the order of NȻ6 million annually.

(*e*) Productive equipment of some corporations is not well suited for sound commercial operation under local conditions.

(*f*) Managerial and financial control at factory level require considerable improvement. Under the best possible conditions, sound administrative, technical and financial control would be required; but to operate successfully under the prevailing difficulties will require management techniques and control of the highest order.

In addition to the general industrial objectives and policies discussed earlier, the government has special objectives and policies in the state sector. In the light of recent experience, policy is being directed to the reduction of the field covered by full state ownership and operation of

industrial schemes. This does not, however, exclude acceptance of the principle of state ownership in industries of strategic importance, such as defence public utilities and pioneer industries.

During the transition period, efforts will be concentrated on the acceleration of the process of transferring to a sound operational basis as many as possible of the enterprise now in the state sector; no additions of new industries to the state sector are contemplated. Physical construction of unfinished projects will, however, be completed where economic viability appears a reasonable prospect. In determining economic viability, primary consideration will be given to securing a return above current and other additional costs involved in bringing the plants into operation.

Where management contracts are necessary to ensure that appropriate managerial and technical skills are available to the state enterprises, the present policy of relating payments to performance will be continued. At the same time, emphasis will be placed on the training of Ghanaian staff.

The major question of which enterprises shall be retained as wholly owned state entities and which shall be dealt with by sales of private participation cannot be resolved until some of the more complex difficulties of individual enterprises already referred to have been resolved. The question will however, be dealt with by the Government during the plan period.

For the implementation of these policies, the Ministry of Industries will be responsible for the completion, where appropriate, of unfinished industrial projects. Operational industrial enterprises are in the course of being taken over by the Ghana Industrial Holding Corporation.

The Ghana Industrial Holding Corporation is required by its statutes to operate on sound commercial lines and to produce a reasonable rate of return on its assets. Many important problems of the group must, however, be resolved during the plan period in order to make the new organisation represent more than merely an administrative reshuffle.

The problem of working capital to enable the Ghana Industrial Holding Corporation to take over and run the nineteen corporations is being considered by the Government. Estimation of the amount required for this purpose is difficult as few reliable financial records have been kept and few financial forecasts have been prepared. The Ghana Industrial Holding Corporation has therefore been requested to prepare comprehensive cash-flow analyses and financial forecasts. It is the Government's policy that as much as possible of the required amount be procured through the private banking system. This will only be feasible where the Ghana Industrial Holding Corporation can satisfy the banks that the firms for which the funds are sought are viable, or where there are inventories or other current assets suitable for lien arrangements. Where the enterprise, in its present condition, is not bankable, the Government will consider marginal investment only if detailed analysis indicates that positive returns on that investment are possible. A global allocation will

be made in the development budget to cover such cases as and when investigations are completed. Problems of long-term foreign indebtedness and debt servicing requirements will be dealt with by the Government in the context of the debt rescheduling negotiations.

The need for protection of some state manufacturing enterprises will be examined in the framework of the general policy on protection and other measures available to improve profitability. Protection will not be granted where inefficiency is evident and the Ghana Industrial Holding Corporation will be required to prepare a case for protection of any individual unit which will entail full financial data and evidence of economic plant operation. Only when satisfied on these counts, on the firm's pricing policy and on the foreign exchange benefits expected to accrue will Government consider protective policy for the firm in question.

Where exports might induce a level of production sufficient to create profitability in a state enterprise, Government will consider assistance by subsidy, bounty or other suitable means. This will permit the development of markets for such time as is necessary to establish a continuing profitable level of operation. Such assistance will not exceed the level warranted by the net benefits involved. Subsidies based partly on the contribution to easing the foreign exchange shortage, which enable a firm to earn profits under the Ghana Industrial Holding Corporation, are considered preferable to previous forms of subsidy which simply consisted of periodic injections of "working capital".

The Government has already taken action on the need to improve managerial and financial control at factory level. Technical assistance has been obtained.

Investment and Development Prospects 1968, 1969

The amount of Government fixed investment in the state manufacturing field during the Plan period and the performance which may be expected of the group in terms of output, value added and profits will depend very greatly on the speed and effectiveness of the implementation of the policies outlined above. It is possible at this time only to present a limited list of certain proposed investment plans, and to project the growth of value added as an aggregate of rough estimates for each firm. On the basis of individual estimates of each firm's likely performance it is estimated that the state manufacturing group can increase value added by 10 per cent in 1968 over 1967. For 1969 an increase of more than 15 per cent is possible.

TABLE 6.7

ESTIMATED INVESTMENT REQUIREMENTS OF STATE MANUFACTURING ENTERPRISES 1968–69

	Maintenance	*New Investment Proposals*	*Self-finance possible*	*Purpose*
State Textile Manufacturing Corporation	88,000	8,000	No	Sundry.
State Cannery Corporation	—	—		
State Paint Corporation	6,000	70,000	Yes	Building.
State Electronic Products Corporation	5,000	126,000	Yes	Building Machines.
State Marble Works	1,000	3,000	Yes	Machines.
State Cocoa Products Corporation ..	41,000	90,000	Yes	Building Machines.
State Footwear Corporation	45,000	65,000	No	Machines.
State Meat Corporation	72,000	1,400,000	No	Cold Storage-Ranching.
State Brick and Tile Corporation ..	3,000	130,000	No	Machines.
Sheet Metal Works	3,000	77,000	No	Building Machine.
Steel Works Corporation	75,000	—		
Fibre Bag Corporation	—	—		
State Distilleries	5,000	53,000	Yes	Machines
State Boatyard Corporation	16,000	—		
Glass Manufacturing Corporation ..	—	208,000	No	Machines.
Vegetable Oil Mills Corporation ..	26,000	—		
State Metal Industries	20,000	22,000	Yes	Machines.
Paper Conversion Corporation ..	—	145,000	Yes	Machines.
Sugar Products	275,715	1,537,066	No	Machines, equipment.
Total	678,715	3,934,066		

VII—INFRASTRUCTURE

Transport

The expected growth of national income over the next two years will impose a heavy burden on Ghana's transport facilities. The transportation system of the country has deteriorated in the recent past, because of poor maintenance of roads and the railways. A major effort is therefore required to bring it back to a desirable standard. In the case of the railway the present situation could have serious consequences on its ability to move export commodities. An improvement to the railway system is essential to maintain and increase foreign exchange earnings.

The broad strategy for transportation is based on relieving short-term bottlenecks, mainly in the railway system, improving road maintenance, and accelerating the reconstruction of feeder roads. Over the next two years, transportation facilities on the Volta Lake will be considerably expanded. An effort will be made to improve port operations, including the establishment of major fish landing facilities on the West Coast. Finally, attention will be paid to improving land and air transportation facilities between Ghana and the neighbouring countries. A new large project for the realignment of the Accra–Kumasi–Takoradi Road system cannot be started until 1970, because of the time required to prepare its detailed engineering report.

The Government has engaged consultants to study the broad prospects for development in the transportation sector. This study, expected to begin soon, will investigate the economies of providing additional transport facilities, will define long-term goals and will attempt to identify new feasible projects. The results of this study will be ready by the end of 1969. In the meantime several urgent problems in the transport sector require immediate attention.

(a) Railway and Ports

RAILWAY

Present situation and expected developments in 1968–69.—During the past few years, and particularly in 1967, the performance of Ghana Railways has been far from satisfactory. The reasons are numerous and complex. A very important problem was the lack of proper maintenance of both the track and the rolling stock due, mostly, to the unavailability of foreign exchange for the import of spares and replacement units. This has been particularly severe in the case of motive power. Furthermore, the communication and signalling system, which was poor to begin with, has deteriorated substantially. To make matters worse, an exodus of skilled labour and technical personnel has been noticed recently, due to more attractive economic conditions offered by private employers. As a consequence, Ghana Railways have had to fight against severe odds, and were not able to cope adequately with the volume of traffic seeking accommodation. While priority has been rightly given to moving cocoa, bauxite, and manganese ore because of their high export value, other export goods, particularly timber, have suffered delays in transportation.

At present, the most important factor limiting the carrying capacity of the railway is the lack of motive power. A large percentage of the fleet of diesel electric locomotives lies idle for lack of spare parts. To correct this deficiency, a substantial amount of foreign exchange was allocated, early in 1968, to enable the Railway Administration to place orders for spare parts: a first improvement of the situation is expected towards the end of the year.

Traffic demand in 1968–69 is estimated to be above the actual performance of the railway in 1967–68 by as much as 22 per cent, in terms of total originating traffic. This will be in excess of the railway's carrying capacity. Even taking into account the improvement in the motive power position forecast for the end of 1968, the railway would be able to move only 10–12 per cent more freight than during the last fiscal year, both in terms of originating traffic or ton/miles. The system will be short of rolling stock till towards the middle of 1969, when the delivery of 10 new locomotives and 50 additional 25-ton vans, to be ordered as part of the railway rehabilitation programme, is expected:—

The following table illustrates the freight handled by the Railways, by major commodities in 1962–63, 1966–67 and 1967–68 and compares it with the forecast traffic demand in 1968–69.

TABLE 7.1

RAILWAY FREIGHT

thousand tons

Product	1962–63 *Actual*	1966–67 *Actual*	1967–68 *Estimate*	1968–69 *Demand Forecast*
Cocoa	330	289	260	330
Bauxite	287	290	286	400
Manganese	428	480	450	400
Timber	693	547	530	730
Other Goods	499	480	235	290
Total Originating Traffic ..	2,237	2,086	1,761	2,150

Policy, investment priorities, and programme:

(i) No major investment to expand the Railways system is contemplated until the present system is rehabilitated and working properly, personnel requirements are filled with qualified staff, and present technical and administrative personnel are properly trained. The latter problem will be given special attention over the next two years.

(ii) The Government has taken a decision in principle to turn the Ghana Railway and Ports Administration into a public enterprise. Such decision will be implemented during the Plan period. It is expected that the new corporation will be in a position to introduce fresh managerial practices, including a system of cost accounting, the improvement of the railway and port statistical service and, above all, a personnel policy which will enable it to compete in the market for labour skills and technical know-how with private sector.

(iii) A project for the rehabilitation of the Railway system is being prepared, on a priority basis, for quick implementation during the Plan period. This includes the installation of a new signalling and Telecommunication system, the acquisition of ten new diesel-electric locomotives and 50 new covered vans, at a foreign exchange cost of about NC6.0 million.

(iv) To improve track condition on the most heavily used line, a project will be worked out for the realignment of several miles of track on the Dunkwa-Huni Valley section.

(v) To ensure the smooth implementation of the rehabilitation project, and to assist the General Manager in the running of the railway system during the difficult period expected in 1968 and 1969, qualified personnel will be hired to fill vacancies of technical positions, and to advise on traffic management.

(vi) Accounting consultants will be hired to assist in the capitalisation of the new corporation to help it introduce a simple system of cost accounting required to control operating costs and to determine freight rates, and to improve the statistical service of the Railway and Ports Administration.

PORTS

Present situation and expected developments in 1968 *and* 1969.—The cargo handling capacity of both Tema and Takoradi is ample in comparison with traffic demand. Nevertheless, difficulties were experienced, at the height of the 1967–68 cocoa season, in the handling of this important export commodity. Some of the difficulties were attributed to the poor performance of the Ghana Cargo Handling Corporation which enjoyed the monopoly of stevedoring operations at both Ports. In addition, shipments were handicapped at the end of 1967 by a backlog of ship arrivals. This affected severely the timber trade.

Cargo handled at Tema and Takoradi during the calendar year 1967 is as estimated in the following table:—

thousand tons

	Tema	*Takoradi*	*Total*
Imports			
Alumina	138	—	138
Cement and Clinker	340	90	430
Coal	—	29	29
Crude Oil and Products	670	100	770
General Merchandise	842	153	1,005
Exports			
Aluminium	39	—	39
Cocoa	180	132	312
Manganese	—	460	460
Bauxite	—	376	376
Oil Products	225	—	225
Timber and Logs	—	476	476
General Merchandise	235	11	246
Grand Total	2,669[1]	1,827	4,506

1. Excluding fishing harbour traffic

The expected increase in the economic activity of the country, particularly in the export sector, will generate a volume of traffic considerably larger than in 1967 at both Tema and Takoradi. The largest increases expected will be in cocoa and timber. A certain increase in the volume of general merchandise import handling is also to be expected, particularly in 1969.

While the physical facilities installed ashore at both ports are adequate to handle the forecast increase in traffic demand, the organisational set-up needs strengthening to enable it to make the bigger effort required. The Government is aware of the situation, and had decided to take certain measures designed to cope with this problem. In particular, the Government has taken over the Cargo Handling Corporation, and has decided to allow private stevedoring companies to operate at both ports.

Marine operations are handicapped by the lack of proper maintenance on the existing tug fleet, the size of which is also a factor limiting the smooth functioning of both harbours. Two new tugs have been ordered. With their arrival in early 1969, the tugs fleet at both port will be adequate to handle all foreseeable traffic.

The dredging of Tema Harbour has not been completed. This causes difficulties at the entrance channel, when loaded bulk carriers or tankers enter the harbour under conditions of heavy swell. Additional dredging at a few general cargo berths at Tema is desirable to facilitate berthing of

cement ships and permit ships to load at the cocoa berths up to their full capacity. Most importantly, the channel to the bulk terminal needs widening. The approach to the newly constructed dock yard needs to be deepened.

At Takoradi, some further dredging is required to allow bulk carriers to call at the clinker jetty. To relieve the congestion at Tema fishing harbour some additional investment is required. Furthermore, new landing facilities for motor fishing vessels and the trawler fleet will be set up in the Sekondi-Takoradi area.

In April, 1968, the newly constructed shipyard at Tema was turned over to the Government. The dock is not yet operational, and further work is required to reposition certain equipment, and to test-run most of it. Additional investment is needed to equip the yard with tools and spares before the facilities can be used for ship servicing and repair, small craft building, and some general engineering work. The Government is aware of the need to provide proper managerial and commercial connections for the yard, before a reasonable amount of orders from the international merchant marine (particularly tankers) can be attracted. An interim board has been set up under the Ghana Railway and Ports Administration to administer the yard before the ultimate form of management is decided upon.

Following Government's decision to take over the Ghana Cargo Handling Corporation, private stevedoring companies will be allowed to operate at both harbours. One of the general cargo transit sheds at Takoradi will be allocated to handle export cargo, notably cocoa. These measures should enable the harbours to handle all products which will be due for shipment abroad over the next two years.

The Ghana Railway and Ports Administration will engage a firm of consulting engineers of international repute to advise the General Manager in appraising and reviewing the programme for dredging both Tema and Takoradi Harbours, in negotiating dredging contracts, and supervising dredging operations.

(b) Roads

Present situation and expected developments in 1968 *and* 1969.—As in the case of the railways, poor maintenance has caused much deterioration of the road system of Ghana. Some remedial action was taken in 1967, but was not sufficient to rehabilitate a heavily run down system.

The size of the total motor vehicle fleet operating in the country has probably not increased since 1965, and can be estimated at a little over 50,000 vehicles at the end of 1967. Road traffic decreased somewhat in 1965 and 1966. New registrations of motor vehicles, which fell to about 4,700 in 1965, rose to 5,500 in 1966, and further increased to 6,100 in 1967. As spare parts were obtainable on Open General Licence in 1967, many vehicles previously idle were brought back into operation.

A major problem faced by the road transport industry is the large number of types of goods-vehicles operating in the country. This feature has increased the range and cost of spare parts required to an undesirable extent, making it difficult to provide adequate vehicle maintenance.

The disorderly growth of the lorry fleet during the last few years has also caused another difficulty. A large number of heavy vehicles have been imported, and have been plying all the roads of the country, often disregarding width and, particularly, axle load limitations imposed by different road specifications. This has worsened considerably the maintenance problem on most roads, with particularly severe effects on the secondary and feeder road system.

Road transport will expand rapidly over the next two years. The increase in demand arises from the expected growth in the economy and is associated with the fact that the railways, particularly in 1968–69, will not be able to handle all traffic demand. Particularly, in the case of cocoa, an effort will be made to use road transport whenever the carrying capacity of the railways will be inadequate. As a result, demand for new commercial vehicles will rise and, at the same time, the utilisation rate of the present fleet will go up substantially. This should increase the overall profitability of the road transport industry.

In order to cope with traffic expansion, better maintenance of the existing trunk and secondary roads is required. Remedial actions is also urgently needed in the field of feeder roads improvement and reconstruction. The lack of proper road linkages between farms and market centres has been a severe handicap to expanding agricultural output. This has affected adversely the production of both food and export crops, such as cocoa.

In 1967, a study of feeder road improvement of Ghana was commissioned to the Road and Building Research Institute in Kumasi. The purpose was to achieve a comprehensive assessment of the need and the economic feasibility of reconstruction and improvement of feeder roads in various areas of the country. A preliminary report will be submitted to the Government shortly.

A programme for the reconstruction of feeder roads was also started in 1967, calling for a total expenditure of over NC5 million. Approximately 500 miles of feeder roads were to be built during the 1967–68 fiscal year. Present estimates are that less than 100 miles were built by the end of the fiscal year. This shortfall is due to a variety of reasons. The roads were to be built only by small local contractors, many of whom had to struggle with plant requiring rehabilitation, for which they needed financial assistance. In addition, the Public Works Department had to cope with a shortage of qualified supervisory personnel, and was unable to follow up properly all contractors' performance. Given the circumstances, the actual performance was not altogether disappointing. However, an improvement on the present performance is urgent. The Government is considering ways and means to ensure that the capacity of the country to build and reconstruct feeder roads is raised substantially, with a target of 500 miles per annum to be achieved during the 1969–70 fiscal year in view.

The Public Works Department has been struggling against very heavy odds in recent past. The salary scales offered by them to both experienced and young engineers are not high enough to attract sufficient Ghanaian talent. At the same time, the burden of work required by various government departments is increasing rapidly, because new programmes for investments are coming forward, and the need for supervisory work is increasing as contractors' activities expand.

In the first quarter of 1968, a report was submitted to the Government by a firm of consulting engineers, on the feasibility of reconstructing the Accra-Kumasi and the Kumasi-Takoradi road system. Two new road alignments have been proposed by the consultants. This project is estimated to yield a rate of return to the economy of over 18 per cent. Accordingly, the Government has decided to accept the recommendations of the report, and to begin negotiations with International Development Association for the purpose of obtaining financial assistance for the construction of the new roads. Detailed engineering of the two road alignments will be completed by the end of 1969, and actual construction will start by the middle of 1970.

Policy issues and investment priorities

(i) Government will investigate ways and means of rationalizing the country's vehicle fleet, and will introduce and enforce regulations limiting the movement of oversize vehicles so as to ensure that excess axle loads are not allowed to use roads not designed for those specifications.

(ii) The Government will make a major effort to step up progress on feeder road reconstruction. The newly formed Regional Planning Committees will be expected to play a major role in promoting and financing, to a reasonable extent, feeder road reconstruction work as well as the maintenance and improvement of these roads.

(iii) The possibilities of providing Public Works Department with a pool of heavy equipment to be leased to contractors engaged in feeder road construction will be explored, with a view to improving the rate of equipment utilisation and increasing the building capacity of individual units.

(iv) In co-operation with the private banking system, financial assistance will be extended to Ghanaian contractors engaged in feeder road construction who need credit to rehabilitate their existing plant.

(v) The maintenance work on the trunk and secondary road system will be stepped up. In order to economize on equipment, and at the same time, to provide employment opportunities, a special programme for utilisation of labour-intensive techniques on road maintenance work will be organized and implemented during the Plan period.

(vi) The Public Works Department will be properly equipped to deal more effectively with major maintenance of the

trunk and secondary road system, as well as with the supervision of construction and maintenance of feeder roads. Its engineering and design sections will be strengthened, and its pool of equipment sufficiently increased.

(vii) In keeping with the new programme for the promotion of transport activities on the Volta Lake, and of international traffic with Upper Volta, the Government will construct the road between Tamale and Yapei (Port Tamale) part of which is now being redesigned. The construction will be co-ordinated with the programme for establishing terminal facilities for lake craft at that point.

(viii) Two studies will be commissioned in 1968 in the road sector: one will investigate the feasibility of improving road connections with Ivory Coast by a coastal road link, the other will investigate ways and means of improving road connections with Upper Volta.

(ix) In line with the acknowledged need to accelerate the training of highway engineers and transport economists in the country, the highway division of the Road and Building Research Institute in Kumasi will step up its post-graduate training programme. At the same time, an expanded, more detailed, programme of feasibility studies for feeder road reconstruction will be commissioned.

(c) Volta Lake Transport System

The Volta River Authority has been operating a small transport service for some time on the Volta Lake, from Kete-Krachi to Akosombo. This service has shown that there is a good traffic potential on the lake for goods and passengers. The scope of the Volta River Authority's experiment is limited. Because of a lack of terminal facilities at Port Tamale the lake cannot yet be used as a means of communication between the north and south of Ghana.

In addition, the absence of terminal facilities at other points, where local traffic of passengers and goods is also likely to originate, has limited the development of traffic as a whole.

It is the Government's intention to accelerate the development of the Volta Lake Transport System. For this purpose a phased programme will be worked out, so that barges and terminal facilities are constructed with the maximum use of indigenous resources, which is technically and economically feasible. The first step of this programme is the installation of aid-to-navigation facilities on the Lake. At the same time, consulting engineers will be engaged to design a system of terminal points and to advise on floating craft design. Port facilities at Akosombo and Yapei will be designed to cater for a limited traffic initially (around 400,000 tons per annum) but in such a way that they can be easily expanded as traffic grows.

While a beginning will be made to expand the transport system over the Volta Lake, the overall possibilities of using it as a portion of a new traffic axis from Upper Volta to the sea will be investigated as well.

(d) Air Transport

Ghana Airways has succeeded over the last two years, in bringing its costs under control. Though the Corporation is not yet making profits, it is nearing the point where no further net losses will be incurred. The utilization rate of the aircraft has improved substantially and is expected to improve further.

Ghana Airways is considering the acquisition of a third Viscount, scheduled to enter service on the West African coast route. At the same time, the Kumasi runway will be extended to accommodate Viscount-type planes. The extension of the Kumasi runway will be synchronized with the construction of the new Tamale airport now underway.

VII—2. POWER AND FUEL

Policy

The Government's development policy for this sector is as follows:

(i) to guarantee adequate and reliable supplies of electricity to industries, mines and the general grid;

(ii) to improve the distribution network in major consumption centres to reduce costs, increase capacity, and stimulate sales;

(iii) in co-ordination with the general programme for expansion of the national grid system, to extend diesel generating capacity in the outer areas and minor consumption centres, with a view to building up demand to the point where the extension of existing transmission lines will become economical;

(iv) to connect the power transmission system of Ghana with that of Togo and Dahomey, with a view to exporting power to them;

(v) to ensure that both the power generating and distributing concerns achieve an economic rate of return on their net assets in service, and improve their financial position, with a view to placing them in a position to generate substantial cash surpluses for financing plant additions and expansion programmes.

Power

Expected developments in 1968 *and* 1969.—The country's generating capacity has been well over the level of power requirements in 1967. The transmission grid set up by the Volta River Authority is working efficiently, but the outmoded distribution networks of most cities cause wastage of power, severe voltage fluctuations, and handicap the expansion of sales to domestic users. Progress in improving the distribution system has been slow until recently, because of the lack of foreign exchange.

The accelerated phasing-in of VALCO smelting operation at Tema increased Volta River Authority's power sales substantially towards the end of 1967. Power consumption from the VALCO aluminium smelter in 1968 is expected to be well over twice that of 1967. Another substantial increase of power sales to VALCO is expected in the early 70's with the final expansion of the smelter plant. The combined demand from the general grid, from new industrial users, and from the mines is expected to grow by over 15 per cent in 1968 and by about 11 per cent in 1969.

The growth in demand from the grid will be facilitated by the improvement programme of the distribution network being implemented by the Electricity Corporation of Ghana. Power sales to industrial units are expected to increase, as a result of better utilization of existing industrial capacity, and the start of some new industrial ventures in the country.

Overall, the forecast rate of growth of power consumption for the next two years is summarised as follows:

Source of Consumption	1967 (*Actual*)	1968 (*Actual*)	1969 (*Actual*)
	Million of kwhs		
Aluminium smelter	923	1930	1930
General grid	366	420	478
Mines	164	165	165
Other industries	—	16	24
Total non-smelter ..	530	601	667
Diesel Generation	16	18	19
Total	1,469	2,549	2,616

During 1967 the Electricity Division of the Ministry of Works and Housing was turned into an independent public enterprise. Several organisational and financial problems arose from this policy decision. As a result, Government action was taken to ensure that the Corporation was put in a position to be run as an efficient commercial venture. The re-capitalisation of the Corporation was complete in May 1968. Accounting procedures and practices have been reviewed, and put on a sound commercial basis. A foreign exchange loan for a total of N₵10 million was successfully negotiated with the International Development Association to finance a large portion of the Corporation's investment programme in 1968, 1969 and 1970.

To enable the Volta River Authority to sell power to Togo and Dahomey, a 161 KV transmission line from Akosombo to the Togo border has been engineered, and negotiations are in progress between the Volta River Authority and the Governments of the two countries on a power sale agreement. The two Governments have agreed to establish the "Communauté Electrique du Benin" which will be the customer of Volta River Authority. Foreign assistance is to be negotiated for financing the transmission line.

The investment programme of the Volta River Authority in the power sector involves a total expenditure of N₵11.8 million over the next two years. The Authority is expected to borrow a large portion of its investment requirements during this period.

A review of the Electricity Corporation's rate policy will be undertaken, with a view to rationalising its structure, and assuring a rate of return of 8 per cent on the net assets in service. A similar review of the Volta River Authority's tariff structure will be carried out at the same time.

The initial large-scale development of power generation in Ghana has been obtained at relatively low cost by utilizing the vast hydro-electric potential of the Volta Lake. Additional power generating capacity, after the last two units of the Akosombo system have been installed, will involve substantially higher costs per MW. This long-term prospect must be kept in mind in shaping the country's power rate policy, because large financial resources will have to be mobilized for further expansion as the need arises.

The investment expenditure of the Volta River Authority and the Electricity Corporation of Ghana over the next two years is estimated as follows:—

N¢ million

	1968	1969
VOLTA RIVER AUTHORITY		
Major Plant Additions:		
Units 5 and 6—Akosombo	2.2	6.6
Togo-Dahomey Line	.5	1.5
Minor Plant Additions	1.6	1.0
Total Volta River Authority	4.3	9.1
ELECTRICITY CORPORATION OF GHANA		
	1968	**1969**
Modernization of distribution network	13.1	7.4
Total Programme	17.4	16.5

Fuel

Between 1964 and 1966, the market for petroleum products declined by almost 15 per cent. This was a reflection of the switch from diesel to hydro in the generation of electricity, and, to a small extent, the decline in the use of fuel by motive power users caused by the slowing down of economic activity in the country. The demand for most products recovered somewhat in 1967, and is expected to grow at a faster rate in 1968 and 1969, in line with the general recovery in economic activity. This trend will not apply as much to the demand for heavy ends as it will to consumption of motor fuel oils in the transport sector.

The forecast of demand for petroleum products over the Plan period, as compared with the actual data for 1967, is summarized as follows:

Year	1967	1968	1969
		thousand metric tons	
Liquid Petroleum Gas	2	3	3
Premium motor gasoline	80	91	102
Regular motor gasoline	59	57	53
Kerosene	58	59	61
Auto gas oil	160	170	184
Diesel oil	12	12	12
Fuel oil	49	54	56
Total liquid products	408	443	468

In 1967, the Tema Refinery processed approximately 670,000 tons of crude oil. Exports of heavy ends were about 230,000 tons. The degree of utilization of the Refinery has been 67 per cent which is too low for a plant of this type.

No major new investment is contemplated by the Government in the refining sector.

Telecommunication

An improvement of the telecommunication facilities is essential for social and economic development in the country and, in particular, for efficient business operation. The present system cannot cope with demand in the large cities. Outside the newly introduced Micro-wave Link areas, inter-urban connections are poor. Some of the important agricultural areas of the country are not yet connected to the national network. The international links, both with regard to other West African countries, and to the European continent, also need improvement and expansion.

The Government has commissioned a study of the development problems and long-term prospects of the Telecommunication Sector. This study will start during the second half of 1968, and is expected to be completed by the end of the Plan period.

For the next two years, the objectives of Government policy are:

(i) to improve the telephone system in the Accra-Tema area, so as to provide adequate and satisfactory service to all customers;

(ii) to continue the present programme for the installation of automatic exchanges and the extension of the Micro-wave and the Subscriber Trunk Dialling systems whenever traffic demand justifies the investment;

(iii) to extend telecommunication services to some of the major rural communities not yet reached by the national network;

(iv) to expand the training programme for technical and professional personnel required to operate and maintain the network;

(v) to take steps to increase revenue and reduce operating costs of the telecommunication service, so as to improve the rate of return earned on its net assets in operations.

The Government has taken a decision in principle to turn over the Post and Telecommunications Division of the Ministry of Communications to the Public Corporate Sector. During the Plan period, the detailed implications of this decision and the precise form in which it will be implemented will be examined. Action will be taken to set up the new corporate entity on a sound commercial basis.

Present situation and expected developments in 1968 *and* 1969.—Table 7.3 indicates the number of telephone connections in the country by the end of 1967:

TABLE 7.3

DISTRIBUTION OF TELEPHONE CONNECTIONS AT END OF 1967

Areas/type	*Business and PBX*	*Residential*	*Total D.E. Lines*	*Extensions*	*Grand Total*
Accra-Tema	4,200	3,200	7,400	11,000	18,400
Ashanti	2,200	1,400	3,600	2,600	6,200
South-West	1,700	1,000	2,700	2,500	5,200
Eastern Region	1,000	400	1,400	900	2,300
Central	1,100	500	1,600	1,000	2,600
Volta	700	200	900	500	1,400
Northern Ghana	400	200	600	500	1,100
Total	11,300	7,000	18,300	18,900	37,200

Note.—Figures are rounded to the nearest hundred. Totals do not add up exactly due to rounding. Areas do not exactly correspond to present administrative regions.

The telephone service in the Accra area, where almost 50 per cent of telephone installations (including extensions) are concentrated, has been far from satisfactory in recent years. The number of applications pending for new connections (approximately 8,000) is as large as that of the direct lines actually connected. Furthermore, telephone traffic in the business area has been heavily congested, as a result of lack of capacity both in the exchange facilities and in underground cable network. The capacity of the Central Accra Exchange is limited to 6,000 lines, and cannot be expanded economically. To remedy this situation, a New Exchange was built at Accra North with an initial capacity of 8,000 lines. This will alleviate the pressure on the Central Accra Exchange. In addition, the underground cable network is being strengthened substantially. A definite improvement in the quality of service is therefore

expected in this area by the end of 1968. The capacity of the Accra Cantonment exchange (3,000 lines) is almost entirely exhausted. As demand is growing rapidly, both in this and neighbouring areas, a new exchange needs to be built in the Accra–Legon area. Work is expected to begin towards the end of the Plan period.

In Tema, the present exchange is full, and a project is in hand for its expansion. At the same time, the underground cable network needs considerable extension. During the Plan period, the Super-High-Frequency junction circuit now operating between Accra and Tema will be expanded, and linked to the Subscribers Trunk Dialling System recently installed between the major cities of the country. In other urban areas, automatic exchanges will be expanded at Cape Coast (to 1,000 lines), and installed at Bolgatanga and Tarkwa (300 lines).

It is important to ensure that the best use is made of existing capacity of the automatic exchanges and the radio links facilities. For this purpose, priority will be given to carrying out all subscribers connections made possible by the present urban cable networks, to further strengthening them, and to their proper maintenance.

A major project started in 1964 provides for the conversion of the trunk telecommunications network from the 48 channels VHF (very high frequency) system to the 300 channels MW (micro wave) system. The MW system, now in operation between Accra, Kumasi and Takoradi, makes possible subscriber trunk dialling (STD). This new service was inaugurated in May 1968, and represents a major step in the improvement of inter-urban communications in the country. The MW and STD will be expanded to include Tamale by the end of 1968, and subsequently to Sunyani, Koforidua, Ho, Akosombo, Swedru and Cape Coast.

With the introduction of the MW system, some sections of the old VHF system, particularly on the Kumasi–Tamale line, will be abandoned. The equipment is obsolete and their maintenance cost high: replacement with new, small capacity UHF (ultra high frequency) accordingly appears advisable. Steps will be taken to ensure that no centre already connected to the national network will be cut off.

The problem of servicing important agricultural areas with a telecommunication network is particularly serious in the Upper, Northern and Volta regions. To relieve this situation, it is planned to service these centres with small capacity UHF systems, starting with three radio links in the North (Bolgatanga–Tumu–Lawra–Wa, Bolgatanga–Bawku, and Tamale–Yendi–Bimbila).

The teleprinter service in the country will be expanded, to satisfy existing demand for both telex and point-to-point service. The present waiting list numbers 51 units for the telex service, and 20 units for the point-to-point system. The existing stock of teleprinters in the country consists of 414 units. The additional requirements for the next two years are estimated at slightly over 100, including replacement needs. The international telex system will also be improved by introducing semi-automatic dialling facilities, as required by International Regulations.

An international feasibility study is being undertaken on the improvement of West African regional telecommunications. The Government will follow the progress of the study with interest. It will promote improvement of the presently limited facilities connecting the national system with that of neighbouring countries.

Availability of trained personnel, both at the technical and the professional levels, is a serious problem for the operation and maintenance of the expanding telecommunication system. A Telecommunication Engineering School project, started in 1965, began to operate in 1967. Initial difficulties have been experienced with the recruitment of students because of insufficiently attractive financial conditions of final employment offered by the Department. Despite the need to shift most of the school facilities to a new location, training is going on at the present site with an intake of about 50 students per annum. Plans are in hand for the reconstruction of the school buildings and the expansion of the training programme to its ultimate designed capacity of about 200 students per annum.

Telecommunication finance and investment programme:—Rather large investments have been made into the telecommunication system of the country in recent years. In order to complete the work already done, and to provide all the service facilities described in the previous section, additional resources of the order of N¢7–N¢8 million need to be invested, N¢3.8 million of which are budgeted in the fiscal year 1968–69. While these investments are in progress, a major effort will be made to improve the financial returns of the Telecommunication service.

The financial position of the Telecommunication division, in so far as it can be ascertained from revenue receipts and recurrent expenditure, leaves much to be desired. Revenues have increased by only 15 per cent from 1962–63 to 1966–67, from N¢3.3 million to N¢3.8 million. During the same period, recurrent expenditure increased from N¢2.6 million to N¢3.5 million, or by 34 per cent. Thus the operating surplus of the service actually decreased, from N¢636,000 in 1962–63 to only N¢320,000 in 1966–67.

In the course of a major expansion, it is not unlikely for a time lag to develop between the increase of operating costs and that of revenue. Nonetheless, the growth of the operating costs of the Telecommunication service, in relation to that of its operating revenues, is disquieting and suggests the need for improvement in cost control. In addition, the possibility of increasing revenues even at existing tariffs will be examined. An important improvement in the financial position could a parently be secured by a speedy completion of all the connections made possible by the expansion of exchange facilities and the cable network. Improvements in billing and collection will also be made. At present, revenues are seriously reduced by incomplete billing of all customers, and incomplete collection of all bills due.

From an economic point of view, the size of the net operating surplus of the service with respect to the investment made in the system is a cause

for concern. No commercial-type accounts have been kept by the Telecommunication Division that would make possible the determination of the current value of net assets in operation. However, although the precise value of net assets cannot be readily indicated, a rough estimate suggests that a much larger operating surplus should be earned if the service is to obtain a reasonable rate of return on capital. Indeed, the present surplus appears hardly to cover probable depreciations costs.

Accounting consultants will be engaged to help with the evaluation of assets, and the preparation of a Balanee Sheet for the new Corporation, as well as to devise an adequate cost accounting system. A review of the tariff policy will be carried out with their help, so as to ensure that the new Corporation will be in a position to earn an adequate rate of return.

VIII THE SOCIAL SECTORS

1. Manpower, Employment and Education

Manpower, employment and education are closely inter-related and cannot be discussed in isolation. In order to develop, a country must have enough of the right kinds of manpower; to ensure that this is so, there must be an education and training system able to supply what is required; if people receive education and training appropriate to the changing conditions of a developing country, employment problems will be greatly eased.

Manpower

During the sixties, the urbanisation of Ghana's population has been rapid: the pull of the towns has been greater than the growth of urban productive employment. For some time, the deterioration of the underlying employment position was concealed by large-scale construction projects of little immediate economic value, and by the retention of redundant labour on the payroll of state organisations. In the consolidation period which followed, the Government, in order to curb inflation, to ease the drain on foreign exchange resources, and to restore order in the economy, cut down on non-productive projects and personnel. The seriousness of the unemployment problem then became evident, though fundamentally the situation had been building up over many years.

Accurate information on the present employment situation is difficult to obtain. The 1960 census showed unemployment as high as 25 per cent of the wage labour force: it is unlikely that the situation has improved since then. About two-thirds of all unemployed are in the 15–24 age-group, so that this is a problem which particularly affects youth. To put the problem into its proper context, open unemployment is a problem which affects only a small part of Ghana's economy since wage employment is less than a quarter of total employment, and those totally unemployed are less than a quarter of total employment, and only about 9 per cent of the whole of the labour force. In strict economic terms, underemployment in the rural areas is probably of greater importance than visible unemployment in the towns. Nevertheless, because of the grave implications of open unemployment, and in particular the effects on the country's youth, the Government regards an improvement in the present employment situation as one of the most important aims of its economic policies.

While suffering from serious unemployment, Ghana also faces labour shortages in certain fields. The supply of high-level manpower is extremely limited. There is a great need for doctors, engineers, architects, surveyors of all types, statisticians, economists, high-level scientific personnel (for teaching, research work, etc.), agriculturalists of all kinds, managers/administrators, technicians (including para-medical personnel), supervisors and foremen in building and the electrical and engineering trades, middle level and clerical skills (e.g. secretaries, stenographers, typists), and trained machine-operators and mechanics. Many key jobs are still held by expatriates; thus over half of all doctors in Ghana are expatriates, and a similar situation exists in the teaching staff of the universities.

Apart from other disadvantages, reliance on expatriates is very expensive and uses up a good deal of foreign exchange. Thus a manpower policy must not only cope with a lack of jobs in some fields, but also a shortage of Ghanaians to fill posts in others.

The present size of the industrial labour force is small and increases in industrial output produce a much less than proportionate increase in employment. Moreover, experience in other developing countries indicates that an investment of at least N¢7,000 is needed per work-place created in industry. With the labour force growing at around 100,000 a year, it is evident that investment resources can only be made available to provide industrial jobs for a small proportion of these additions, quite apart from reducing the present volume of unemployment.

The Government is aware of these facts, and intends to concentrate on a long-term solution of the problem through sustained economic growth along lines which maximise the use of labour. In all the sector programmes, the appropriate use of labour-intensive techniques is stressed and the policies for these sectors will directly improve employment prospects.

Increased attention will be paid to improving the supply of trained personnel for employment opportunities. In this connection curricula and courses will be adapted closely to occupational requirements in educational and training programmes.

One of the main reasons for the present high level of unemployment in the towns is the disparity between rural and urban incomes. As long as the lowest urban wage exceeds substantially the income of most of those in the rural economy, the drift to the towns will continue unabated, even in the face of mounting urban unemployment. Higher rural incomes will go far to ease the unemployment problem, even though this appears to be an urban phenomenon. During the Plan period the Government's efforts will be directed towards improving the standard of living in the rural areas; in agriculture, through increased productivity; in transport, by feeder road rehabilitation and construction; in social welfare, by self-help projects; and in health by rural water supplies and a network of health posts. In this way the incentive to migrate to the urban areas and the problem of unemployment will become less intractable.

The Government recognises a particularly strong need for an improvement of basic information on manpower and employments. The Government has set up a Manpower Board composed of members with varied experience in this field. It is the function of the Board to advise the Government on the development and utilisation of the human resources of the country.

The Office of the Special Commissioner for Redeployment of Labour established two years ago will continue to promote employment-creation programmes and organise redeployment of laid-off workers. The Public Employment Centres, which operate in many of the smaller urban areas, serve as a channel whereby workers can be informed of job vacancies. In this way many people have been found productive jobs during the consolidation period. Work in this field will be intensified.

At present many positions at varying levels are occupied by non-Ghanaians. To enable an increasing number of Ghanaians to rise to positions of responsibility, especially in business and industry the Government will take measures to induce private firms to provide adequate in-service training programmes. The Government will also strengthen its own programmes in this field.

4. EDUCATION

Education has a social role to play in improving the quality of human life. Education is also of the utmost importance from an economic point of view. It is a major form of investment in the social and economic future of the nation. During recent years education has expanded rapidly at every level, as shown in Table 8.1:

TABLE 8.1

STUDENT ENROLMENT

	1961–62	1962–63	1963–64	1964–65	1965–66	1966–67	1967–68
Primary	641,771	805,211	874,475	1,055,521	1,137,495	1,116,845	1,072,523
Middle	184,292	204,935	236,241	257,625	267,434	280,866	329,679
Secondary	19,052	20,893	26,663	33,131	42,064	42,276	43,889
Technical	1,340	1,520	1,538	4,585	4,956	4,743	43,889
Teacher Education	1,186	5,769	8,816	10,203	15,096	16,516	16,768
University	1,378	2,030	2,432	3,406	4,267	4,506	4,878

This expansion has taken place at great cost. Public outlays on education both current and development, rose from N₵34.4 million in 1961–62 to approximately N₵81.0 million in 1967–68. In the latter year education accounted for 20.5 per cent of all government expenditures, an extremely high figure when one considers all the competing claims on the country's resources. There would be less cause for concern over these trends if the programmes concerned had been well planned and co-ordinated, and had concentrated on education of a sort which would endow pupils with the capacity to contribute effectively as citizens and workers to economic and social development. Unfortunately, this has not always been the case. As a result Ghanaians are now paying the price of educational expansion undertaken before trained teachers were available in sufficient numbers.

One important weakness of the educational system as it has developed, has been the growing imbalance between the different levels of education. As Tables below show, while educational expenditure rose as a proportion of total government expenditure, the components showed sharply different trends. By 1967–68, the proportion of educational expenditure on secondary schools had fallen to under half its 1960–61 level, while the proportion spent on colleges and universities had nearly doubled. Naturally, the re-allocation of funds between the different levels of education cannot by itself achieve fundamental changes in the short term. These changes can

only be fully implemented as more facilities and teachers become available. In particular, a sufficient supply of well-qualified teachers from training institutions at every level is essential.

TABLE 8.2

BREAKDOWN OF EDUCATIONAL EXPENDITURE

(N£'000)

	1960–61	1961–62	1962–63	1963–64	1965	1966–67	1967–68*
(*a*) Administration	1,557	1,601	1,997	2,429	3,281	2,553	4,509
(*b*) Primary Schools ..	9,070	11,516	17,419	24,062	23,922	27,144	28,386
(*c*) Secondary Schools ..	9,990	6,648	3,839	7,555	7,903	8,576	11,431
(*d*) Teacher Training Colleges and Universities	6,491	10,974	16,502	19,164	28,262	26,924	32,333
(*e*) Technical Training Institutions	1,086	937	1,234	1,566	1,393	1,864	2,261
(*f*) Adult Education Libraries and Museum	1,246	1,444	891	1,526	1,082	1,187	1,394
(*g*) Other	507	1,291	3,849	260	161	213	272
(*h*) Total	29,947	34,410	45,731	56,562	66,003	68,460	80,586
(*i*) Grand Total	227,307	235,633	268,298	320,765	5,69,522	302,301	393,224

* Estimated.

TABLE 8.3

PERCENTAGE BREAKDOWN OF EDUCATIONAL EXPENDITURE

	1960–61	1961–62	1962–63	1963–64	1965	1966–67	1967–68*
(*a*) Administration	5.2	4.6	4.4	4.3	5.0	3.7	5.6
(*b*) Primary Schools	30.3	33.5	38.1	42.5	36.2	39.7	35.2
(*c*) Secondary Schools ..	33.4	19.3	8.4	13.4	12.0	12.5	14.2
(*d*) Teacher Training Colleges and Universities ..	21.7	31.9	36.1	33.9	42.8	39.3	40.1
(*e*) Technical Training Institutions	3.6	2.7	2.7	2.8	2.1	2.7	2.8
(*f*) Adult Education Libraries and Museum	4.2	4.2	1.9	2.7	1.6	1.7	1.7
(*g*) Other	1.7	3.8	8.4	0.5	0.2	0.3	0.3
Proportion of Total Government expenditures	13.2	14.60	17.1	17.6	17.9	22.7	20.5

*Estimated.

It will be the Government's objectives over the Plan period to rebuild the education system with the increased emphasis on quality and relevance to economic growth. Vocational education, teacher training and curriculum development will be especially emphasised.

As a first step the administration of education will be improved by a number of concrete measures. The administration of schools and colleges will be decentralised and this will permit a smaller number of officials in Accra to devote more time to policy making and planning duties. At the same time, the administration of pre-University education and of Higher education will be co-ordinated.

It is now intended to plan education as a whole. As a first step the Government has recently created a planning unit in the Ministry of Education. The Government will in future ensure that the proportion of educational expenditure going to the various levels of training is planned and not be the uncontrolled outcome of unco-ordinated operations of different organisations. In addition to the planning unit in the Ministry of Education, a Research and Development Unit has been established to improve the content of education.

Primary and Middle Education.—Government is currently carrying out a re-organisation of primary and middle education, and is substituting an integrated basic eight-year course for the ten years of schooling now prevailing (eight which are primary and two years a pre-vocational continuation school), for those who do not proceed to some form of secondary education. It is hoped as a long-term policy and as qualified teachers and improved material become more available, that this period of the basic course will be reduced to six years. In the meantime, the eight-year course will be followed by secondary education for those who qualify through the common Entrance Examination.

This continuation course will be taken at continuation schools. The number of these schools will be increased during the Plan period. They will provide vacationally oriented instruction to equip a majority of primary school children for gainful employment. A new syllabus for these schools is under preparation. During an interim period, pupils who complete the eight years of primary schooling will spend the final years of their ten-year schooling on new courses which are being prepared.

A first pre-requisite is to replace the large numbers of untrained pupil teachers, who in 1967–68 constituted over 60 per cent of the total teaching force at these levels by qualified teachers. The aim during the Plan period is to reduce the ratio of untrained teachers in primary and middle school to below 50 per cent. At the same time new materials and teaching methods will be introduced to the schools, and work will continue on the development of a syllabus fully relevant to the needs of the vast majority of children who live in rural communities.

Expansion of education at these lower levels will be concentrated on those areas which in the past have had least educational opportunities relative to their population. In other areas, expansion of education will be

provided by better utilisation of existing facilities and personnel. The average number of pupils per teacher over the whole country which is at present only 29 will be brought nearer to the permitted maximum of 46. Indeed the average is being raised by a regrouping of a number of small non-viable schools.

Secondary Schools.—Secondary schools occupy a key position in the education system as suppliers of qualified entrants both to 'middle level' jobs and to the higher training institutions such as universities and teacher training colleges. As shown above in Table 8.3, secondary education has received a declining proportion of total educational funds. The results are evident in the low proportion of primary school children entering secondary school and in the great difficulties experienced by the universities to recruit students to fill courses of particular relevance to the country's development.

The Government intends to draw up immediately a new capital development programme for secondary level education which will make possible some increase in admissions in 1969 and as more sizeable increase in succeeding years when the pressure of demand from pupils completing the eight-year of primary school becomes particularly heavy. Future expansion will be concentrated initially on bringing existing schools up to three stream size and where possible day pupils will be added to boarding schools. As the cost of a day school is substantially lower than the cost of a boarding school, this policy will permit more children to receive secondary education.

Special attention will be given to expanding sixth form work, particularly in science subjects, so as to permit better utilisation of science teaching facilities in the universities. It will be necessary to bring about a corresponding strengthening of science teaching in lower secondary forms. Science teacher degree courses at the Cape Coast University College will make an important contribution to this.

The Government intends to improve the effectiveness of secondary schools both as regards the curriculum and overall costs. The secondary school curriculum is being diversified to include more practical subjects such as commerce, agriculture and domestic science.

Technical Education and Vocational Training.—Technical education and vocational training also play a key role in producing the skilled craftsmen and technicians so essential in every sphere of production. An adequate support from skilled workers is required for effective utilisation of the heavy investment in high level manpower. Accordingly the future development of technical education institutions will be undertaken in consultation with employers. Technical education provided in technical institutes and polytechnics will be related to in-service training organised by public and private enterprises.

Craftsmen and technicians require steadily improving levels of general education to give them a proper understanding of the principles of the technology they are using and of the social and economic context of its application. For this reason, the content of courses in the technical institutes is being modified to include more general education in the first

two 'pre-technical' years of the four-year courses. A similar trend is evident in the polytechnics where it is intended as soon as possible to bring all courses up to post-secondary level entry including entry from technical institutes. In addition, the polytechnics will be strengthened so as to enable them to provide advanced diploma courses.

Three trade training centres exist. There is one at Accra covering a wide range of the most common trades. Another at Tema covers the textiles trades. A third under construction at Tema will cater for machine building and power engineering trades. These trade training centres run shorter courses, often in conjunction with employers, to supplement the training being provided for apprentices under the National Apprentices Act of 1961. The content of courses will be geared to specific requirements of employers. Accordingly priority will be accorded to the development of courses at the centres, as well as at the polytechnics, organised on a part-time basis for students sponsored by employers.

During the Plan period, Government will carry out a major review of all aspects of commercial and technical education and training in Ghana, including apprenticeship schemes and private institutes and colleges. Government intends to play a more active supervisory role with regard to private training so as to ensure that proper standards are being met, and that the qualifications awarded in them fit into a nation-wide pattern of accepted standards. The training of technical teachers has an important part to play in the maintenance and raising of standards and with this end in view, Kumasi Technical Teachers College will be further developed.

Teacher Education.—The objectives of the plan for education will be achieved only if an adequate supply of well trained teachers is available. For this reason the Government attaches the greatest importance to ensuring that the conditions of service are sufficiently attractive to retain teachers of high calibre. The Government has already accepted the proposals of the Mills-Odoi Commission for improving the remuneration and other conditions of service of teachers. It is confident that these measures will prove effective in retaining teachers now in service and in recruitment. As a result of rapid expansion in enrolment, the number of places in teacher training has risen to nearly 17,000. However, the rate of intake of new recruits fell back after 1965–66. In 1968–69 the intake will be restored to the previous peak level. A major obstacle to the improvement of teacher education in Ghana at the present time is the large number of small colleges which are hardly viable at their existing levels of operation. Government intends to consolidate the teacher training college system on a rational basis and will increase the enrolment in each individual college. One of the first tasks of the new planning unit in the Ministry of Education will be to draw up projections for the future demand for teachers at all levels and to calculate the number of college places that will be needed with a view to ensuring that as far as practicable the intake into teacher training colleges will be from secondary schools.

The need for high quality teachers/tutors will be met in large part by the new Associateship course which will start in September 1968 at the Advanced Teacher Training College at Winneba.

Higher Education.—The three higher education institutions in Ghana —the University of Ghana at Legon, the University of Science and Technology at Kumasi, and the University College of Cape Coast—bear an exceptionally heavy responsibility. Not only do they have to provide a large part of the most advanced training but they also have to extend the boundaries of knowledge and safeguard basic intellectual freedom. The Ghana Government recognises the need for university autonomy in basic academic matters. This entails a reciprocal responsibility on the part of the universities to discharge their obligations to the whole society which maintains them.

In this respect the universities must ensure that their teaching and research are related to topics and problems of national importance. The universities have also a duty to apply carefully the funds made available to them. University education in Ghana is very expensive. Overall financial control of funds allocated by the Government to the universities will be strengthened.

The proportion of funds going to the various levels of education will in future be decided centrally The number of pupils entering university has been a function only of the number who can achieve a given standard: this standard was initially fixed at a low level, so as to ensure an adequate intake of students, but now there will be keener competition especially in the Arts courses. In future the number of admissions to the universities will be determined by Ghana's manpower needs within the framework of financial constraint. In this way, a better balance will be achieved between expenditures on the various levels of education. The process will inevitably take some time, because of the momentum behind past expenditure decisions. Thus once first-year students have been admitted to a university, they must be provided with more expensive specialised courses in the following years. Because situations of this kind arise, it will be some time before the full effect of these new government policies will be reflected in a changed composition of educational expenditure.

The Government will establish a National Council for Higher Education to advise on policy towards the universities. This machinery will include a university grants committee to provide a framework for identifying priorities and allocating finance throughout the university system.

Overseas scholarship policies will aim at stricter control over students' choice of subject and public funds will only be made available for essential courses not available in Ghana. The Government will also strengthen controls to ensure that those persons who study abroad at public expense return.

At present it costs over N¢10,000 for each student who takes the standard undergraduate course, and virtually no part is borne by the student himself. The Government does not consider this equitable since, although the community benefits from an extra graduate, the individual himself also receives enormous benefits in terms of future earning prospect. The Government is considering the whole question of costs of student tuition and boarding, and the possibility of introducing a student loan scheme to cover part of the expenses.

Adult Education.—The adult education authorities have buildings adequate for residential courses, but insufficient funds for satisfactory operations. This imbalance will take a certain time to correct. Meanwhile the Government is examining the whole question by undertaking research into adult education to enable it to adopt a more systematic approach to work in this field.

Research Institutions.—Over the years a large number of separate research institutions have come into being, often working with little co-ordination in overlapping fields. Because of financial stringency, individual budget allocations have been small—although the total spent on research has been large, and as a result many institutions have received insufficient funds to operate satisfactorily. The research activities of the Academy of Sciences have been recently reviewed in the Cockcroft Report.

In 1968-69, the Government will be spending over N¢3.5 million on research. This is a large outlay, and the tax-payer has a right to expect that he will receive commensurate benefits. In the present state of Ghana's economy, there can be no question of employing highly-paid staff to undertake research which has little or no relevance to the country's needs. In accordance with the Cockcroft Committee's recommendations, a Council for Scientific and Industrial Research is being set up to take over responsibility for the organization, co-ordination and supervision of research which had hitherto been under the purview of the Ghana Academy of Sciences. The latter itself is being reorganised as a separate learned body to be called the Academy of Arts and Sciences. The Council will be directed to review all research activities financed with public funds. The Cockcroft Committee's Report will serve as a guide in this review. The aim will be to eliminate expenditure on projects of little economic value, unless an overwhelming case can be made on purely scientific or cultural grounds. The review will also cover the possibility of consolidation of institutions in research field, so as to avoid duplication. All research institutions will be required to work for the benefit of the country and budget allocations will be closely related to their success in this respect.

VIII—2. HOUSING

The expansion of industry and commerce in Ghana has drawn a large number of people from rural areas into the principal cities and towns. This migration has imposed a heavy strain on the available housing. The result has been overcrowding and with it the associated evils of ill-health, social mal-adjustment and crime. For these reasons, housing is a facet of a larger social problem whose solution will require renewal and slum clearance.

In the rural areas the housing problem is of a different nature, although it shares some common features with that of the urban areas. The main problem in rural housing is the relatively low quality of the structures, coupled with un-hygienic surroundings.

It is the policy of the Government to extend the benefits of good housing to as large a section of the people as possible both in the rural and urban areas. The Government recognises that this requires the mobilisation of all available resources both private and public. Dependence on public investment alone in housing cannot solve the problem of housing shortages. It will therefore be the policy of the Government to encourage house building in the private sector by rationalising the incidence of taxation on house-owners, reviewing the operation of controls especially in urban areas, and eliminating bottlenecks in the construction industry. It is believed that under favourable conditions a large section of the population would prefer to invest in houses as against putting their money to other less satisfying uses. Such investment should create employment opportunities for many and provide a spur to the building materials industry. However, the immediate need is to provide housing assistance to people in the lower income groups. This is the primary responsibility of the Government.

In addition to its direct responsibility in the field of housing for the lower income group, the Government will provide some support to those of the middle and upper income groups who wish to become home-owners. The nature of this assistance is described below.

The Ministry of Works and Housing.—If a real impact is to be made on the problem of housing, it is essential that the various government agencies responsible for housing are brought together to prepare a consolidated annual housing programme and budget. In addition, these agencies must arrange to share and strengthen their technical services, to provide for large scale site development, to sponsor self-financing methods such as co-operatives and industrial housing, and to secure the flow of savings, banking and insurance funds into housing. To achieve a more co-ordinated programme so as to reverse the deteriorating trend in the housing situation, the Government will resuscitate the inoperative Housing Division of the Ministry and will staff the Division with persons of appropriate qualifications. The strengthening of this Division will ensure that the requisite expertise is available at the policy-making level for scrutinizing and vetting the technical proposals which come to the Ministry from its Agencies. The Division will also initiate and carry out

preliminary evaluations of schemes which the Government may propose. A Housing Advisory Committee will be established to provide the necessary guidance on the formulation and implementation of effective housing policies.

Executing Agencies.—The Agencies responsible for carrying out the government policies in the field of public housing are:—

State Housing Corporation; and
Tema Development Corporation.

The State Housing Corporation.—The State Housing Corporation was set up more than ten years ago with the aim of providing low-cost housing for the largest number of people. In spite of this stated purpose, the operations of the Corporation have tended in recent years to emphasize middle and upper income group housing. Moreover, it is clear that the primary objective of the Corporation has been sacrificed in favour of economic expendiency. The function of the Corporation needs to be restated; its primary objective is to provide low-cost housing for the largest number of people. During the Plan period, the Corporation will be responsible for building about 2,000 houses in each year 1968 and 1969, the majority of which will be for low income groups.

There is evidence that the Corporation is not collecting all the rent and hire-purchase payments that are owing to it, because the records are incomplete. It will be a major task to identify physically every house in which the Corporation has an interest, and to show the house on the appropriate site plans within each estate.

After being so many years engaged in public housing, the Corporation has not yet achieved a reasonable degree of self-finance. In part, this appears to be due to inadequate accounting procedures. The element of subsidy implied by the government's policy of aid to low cost housing and the cost of other tasks performed for the government have not been distinguished from other expenditures. Nor have maintenance costs been clearly separated from initial costs. The Government will take steps to re-organise the Corporation in such a way as to ensure that operations not covered by subsidy are put on an economic footing. The Corporation will also be required to offer houses for sale on deferred-payment terms in accordance with an approved scheme which specifies clearly the terms of sale. These terms shall in no case be more favourable than the terms of finance available to the Corporation.

Tema Development Corporation.—The other executing agency for the Government's housing programme is the Tema Development Corporation which has overall responsibility for the development of Tema Township. During the Plan period the target will be the construction of 2,000 housing units both in 1968 and in 1969. In view of the limited resources of the public sector, it is the policy of the Government to encourage private house building both by companies and individuals, so as to increase the general availability of houses in Tema.

Despite the large investment which the Government has made in houses at Tema, the Tema Development Corporation like the Housing Corporation has not yet achieved the degree of self-finance anticipated.

With regard to rent collection, account records and general financing, the Government's policy will be the same as for the Housing Corporation.

Roof Loans Scheme.—This scheme, which was initiated in 1956, offered assistance to people in the rural areas in completing their houses after they had reached the roofing stage. The scheme was very popular but its operation in recent years has been affected by indifference and mismanagement. The revolving capital fund has run down, the resources of the fund have been diverted to other uses, and repayments from borrowers have not been actively followed up with the result that arrears have mounted. It is the policy of the Government to revive the scheme and to place it under the control of the Ministry.

Building Costs.—It is recognised that Government's effort to provide working class housing at rents or instalment purchase terms that the workers can afford will not be very effective unless the cost per dwelling unit can be substantially reduced. A concerted attack will therefore be made on the problem of reducing building costs.

The achievement of any reduction in building costs entails considerable research into all matters pertaining to housing. Research is needed in planning the layout of housing estates to provide for services and amenities at minimum cost. The design of standard house-types so as to simplify construction and to permit the use of mass production of selected housing components also needs to be studied. A revision if building regulations to facilitate incorporation of new methods is envisaged.

Research is required into the import content of house construction so as to reduce foreign exchange costs of building materials. A research programme is under way in the Department of Housing and Planning, University of Science and Technology, Kumasi for the design of low-cost houses using suitable local materials. The results obtained so far are encouraging and the Government intends to stimulate the use of these techniques as soon as possible in the provision of low-cost houses in urban as well as in rural areas. A number of projects in this programme will have a favourable impact on the development of small-scale building material industries.

Rents.—Closely related to the decision to put the operating agencies on an economic footing is the problem of the rents charged to tenants of publicly-owned houses. The rents currently in effect are related to neither commercial rents nor to the tenants' ability to pay. Subject to such variations as circumstances may warrant, the policy will be to charge economic rent, and if subsidies are necessary the accounting system will be designed so as to reveal the amounts of the subsidy. An income ceiling will be considered for those who will be entitled to the renting of public-owned housing. A rent review committee will be appointed to carry out a general review of rents.

For those who want to own their houses it is intended to provide some assistance. This assistance will take the form of making available prepared sites provided with roads, drains, water supply and electricity.

These sites will be leased at cost to developers who will build to their owns designs subject to normal approvals of the local and town planning authorities. Associations of tenants or co-operatives which build houses or apartments will be encouraged.

VIII—3. HEALTH

In the past large expenditures have been made on hospitals but these have been distributed unevenly throughout the country. Moreover, the hospitals were inadequately staffed and lacked supplies of drugs. The rural areas benefited little from the Government's expenditure on health. Furthermore, environmental health, mental health, and the health protection and promotion services, were seriously neglected. The equipment and vehicles of the health services quickly deteriorated through lack of maintenance.

With many projects half-way to completion, it was impossible to make a radical change in the pattern of development expenditure, without sacrificing completely the large amounts of money already committed. Yet once the new hospitals were built they would tend to worsen the existing regional imbalance and the excessive emphasis on curative rather than preventive health. The Government considers that the highest priorities are to provide preventive health services and to improve health services in the hitherto neglected regions.

The policy of the Government will be to provide the highest level of health services which resources will permit and to distribute their services as widely as possible among people and regions. The principle will be to employ resources to give health services to the greatest number, rather than to provide sophisticated services for a few people.

Environmental Health.—Unsafe drinking water is a major cause of a large number of diseases, some of the most important in Ghana being typhoid, dysentery, bilharziasis and dracontiasis (Guinea worm). Since the greatest danger is usually contamination of the source of drinking water, even the simplest water supply system can lead to far better levels of general health.

Because of the importance to health of clean water supplies the Government will give first priority to the expansion of this aspect of the environmental health services. The Government has reorganised the water and sewerage services as a Corporation. For new projects, great emphasis will be placed on the need to improve rural water supplies. Within this same broad strategy, development will vary according to the conditions found in the various regions. In all cases there will be a very careful analysis of the costs and benefits of the various possible approaches. Treatment of surface water, dug wells, district system or individual boreholes, drilling deeper boreholes or seeking new sources at a smaller depth are possible alternatives.

In the Upper Region, the supply of year-round surface water is very limited, and it is sometimes necessary to rely on deep boreholes. In these cases hand-operated pumps are very heavy to operate and the Government plans to aid in the mechanisation of these pumps. A large number of new boreholes will be drilled during the plan period. In the Northern Region, the supply of surface water is limited also and boreholes have not proved very successful. Exploration and prospecting for underground water will be intensified, since this is often the cheapest method of

water supply. In some places, where feasible and economic, surface water will be provided for both irrigation and domestic water supply, through dam-building projects to be undertaken jointly by the Irrigation Division of the Ministry of Agriculture and Ghana Water and Sewerage Corporation. For Brong-Ahafo, water supply may be based on both boreholes and dug wells. In the South, water is usually available the whole year on or near the surface of the ground; population densities often permit general water systems for both urban and rural areas. The planned water supply programme is as in appendix.

Certain improvement schemes will also be undertaken in the field of urban water supply. Work will start on an extension of the water supply for Swedru District, and development work will continue at Koforidua, Kumasi, Sekondi-Takoradi.

A master plan for the development of the water and sewerage facilities of the Accra-Tema Metropolitan Area was prepared in 1966 and the feasibility study for the first stage was completed in 1967. This project involves an investment of N₵8.6 million, spread over three years. The Ghana Water and Sewerage Corporation is now preparing the detailed engineering of this project. The Government has approached the World Bank with a view to obtaining a substantial part of the necessary finance.

The Government will adopt a water pricing system that will maintain an equitable balance between the needs of the urban and of the rural areas. It is Government policy to ensure that priority is given to satisfying the fundamental human need for good drinking water all over the country. The Government intends to levy charges in the urban areas which cover costs and allow for a certain element of self-financing in new development. At present in Accra only half of those who should pay water rates are doing so. To ease collection and permit a more flexible rate policy, meters will be installed in the main water consumption areas. A study of costs and revenues is already under way, to assist in the formulation of a rational pricing policy, and progress is already being made on improving collection of water rates.

Apart from the risk to water supplies, inadequate sewage and refuse disposal is a serious hazard to health. The Government recognises the importance of better sewerage and refuse disposal for the health of the population. Towards the end of the Plan period, a start will be made on the provision of comprehensive sewerage facilities for Accra and feasibility studies will be undertaken for other large towns. In other places, strenuous efforts will be made to improve standards of refuse disposal. The Central Government will give every encouragement to the local authorities in this matter, and will provide technical guidance when this is required. It will also provide financial assistance to the smaller local authorities, on a basis of matching contributions, e.g. for the purchase of sanitation vehicles, building of sanitary structures, and for improvements to drainage. The foreign exchange cover for the purchase of sanitation vehicles will be provided.

Health Promotion and Protection Services.—The case for giving priority to the health protection services as compared with curative services is extremely strong from the point of view of the benefits obtained

from a given expenditure. Hence the Government has tripled in 1968–69 the Development Budget allocation for smallpox and measles vaccination, over the 1967 allocation and hopes by the end of the Plan period to be able to provide smallpox vaccination for the entire population. Also within the Plan period, vaccination against measles will be offered to all children from 6 months to 4 years of age; at present, 9 out of 10 children catch the disease by the age of five, and the fatality rate is high. A large scale programme against tuberculosis will be got under way, and research and pilot projects on malaria and onchocerciasis will continue.

Among the health promotion services are the public health services, mother and child care, and health education. During the Plan period, the Government intends to place increased emphasis on work in this field. Thus there will be increased liaison between the Ministry of Health and Ministry of Education, with the aim of improving health education in schools. To increase the number of public health staff who can be trained, a new School of Hygiene is being built in Accra; and many public health workers may in future benefit from field bonuses.

Some curative work will also be done by public health and community health nurses; this will improve their relations with patients, and make their preventive work more effective. A Central Chemical Laboratory is being built at Okponglo to provide a base for public health activities, and to supervise such matters as food quality and drug control. Another laboratory which is being built in Accra as a supporting facility for hospital transfusion services will also perform public health functions.

Every effort will be made during the plan period to extend the maternal and child health services into the rural areas and to improve the direction and co-ordination of activities in this field. This will not only provide a means for reducing the high infant mortality in the rural areas, but it will also provide a means of reducing the incidence of disease such as protein-calorie malnutrition. In addition it is through the maternal and child health services that the mothers and families can be reached for the purposes of important services such as health education including family planning. Family planning, by enabling the mother to space out her children, conserves her health and strength, thus enabling her to look after the family better and also make effective contribution to the public welfare especially where she is gainfully employed. It would also lessen the strain on the health services and make it far easier to improve the level of services provided.

On general economic grounds it is also desirable to cut down the rate of population growth, from its present level of about 3 per cent. A lower rate of population growth is likely to permit a higher level of savings and investments; also housing and educational facilities will be less strained.

To ensure effective planning and implementation of projects in this important area, efforts will be made to develop appropriate maternal and child health units within the Regional and Headquarters Organisation of the Ministry of Health. The Government, therefore, in co-operation

with the Planned Parenthood Association of Ghana, will provide family planning and fertility control services for those who desire them at all health facilities.

Curative Medicine.—The typical costs in most developing countries per person served at health posts and hospitals are as follows:—

	Capital cost each year per person served	*Running cost each year per person served*
	N₵	N₵
Health Post	2.20	1.10
Hospital	130.00	13.00

In Ghana, as in most developing countries, running costs for the hospital are over ten times as high as those for the health post and the capital costs are about sixty times as high.

Hospitals are invariably situated in the larger urban areas, so that the inhabitant of a rural area receives little benefit from the hospitals, and pays heavily in transport charges for the benefit which he does receive. The Government intends to place the greatest emphasis on rural health posts, particularly, in those regions which are currently deficient in health services. Expansion of the health post network in 1968 will be as fast as is organizationally possible, with funds provided as required; and it is expected that the same policy of maximum expansion can be maintained for 1969.

The Government will limit new expenditure on hospitals to the minimum which will ease bottlenecks and improve the regional balance of facilities; at the same time work will have to continue on existing projects. The Government will start work on new hospitals during the plan period at Tamale, Sunyani, Koforidua and Ho and will improve or develop hospitals at Mampong-Ashanti, Sehwi-Wiawso, Sekondi and Cape Coast. A blood bank and laboratory, are to be built, as a supporting facility for hospital transfusion services. This laboratory will also perform public health functions. A radiotherapy centre will also be built, to provide a form of treatment not yet available in Ghana. It is expected that all hospitals will benefit from the improved supplies and administration system which will be instituted, and the flow of new trained staff.

Five-sixths of the cost of a fully equipped hospital is on construction. Steps are being taken to review hospital construction methods, with a view to lowering the present exorbitantly high cost of hospital facilities per bed installed.

Mental Health.—In the field of mental health the most urgent need is for more accommodation, to ease the present extreme overcrowding in the existing dilapidated facilities. Work is well advanced on extensions to Ankaful, which will also facilitate the training of nurses. The Government has decided to build a new mental hospital just outside Accra, and it is hoped that construction will begin shortly. The siting

of the hospital near Accra will permit it to be used for teaching purposes by the Ghana Medical School. Meanwhile, immediate steps will be taken to ameliorate conditions at the existing Accra Mental Hospital.

The mental health services need to be integrated with the rest of the health services, to provide some sort of mental health treatment outside Accra and Ankaful. To relieve the pressure on Accra, the Government will shortly set up small psychiatric services in Tamale and Kumasi, with one psychiatrist each; this will help to relieve the strain on Accra Mental Hospital, where over 20 per cent of all patients come from Northern and Upper Regions, and slighly than 20 per cent from Ashanti and Brong-Ahafo Regions. Steps will also be taken to attach highly qualified State Registered Nurses/Registered Mental Nurses to other regional hospitals, to provide simple treatment. Eventually, the aim is to have small psychiatric services connected with all the regional hospitals. Public health nurses will receive some mental health training to provide the most basic curative and preventive treatment at the local level.

Dental Health.—Funds for dental work will be used mainly for dental health promotion and protection. The Government intends to study the possibility of fluoridating the water supply as a general dental health measure. At the same time, dental education will be done by public health nurses, and more school dental nurses will be functioning at school clinics. The dental health services will be integrated with the general health services, and the main stress will be on the use of nurses and other paramedical staff.

Personnel and Training.—Whatever the efforts of the training programme, the supply of higher-grade manpower is likely to fall short of the demand. The cost of training a physician is N¢15,000–N¢20,000; nurses and paramedical staff is N¢1,500–N¢2,000, and auxiliaries and health assistants N¢500–N¢600. In these circumstances, the Government has decided to implement a policy of maximum delegation within the health services.

In many cases, the greatest shortage of staff at present is found at the auxiliary and health assistant level. Accordingly, everything will be done to maximise output of nursing auxiliaries, and this will be given the highest priority. The Government has now abandoned the Qualified Registered Nurse course, and all the institutions formerly engaged on turning out QRNs will now be producing nursing auxiliaries, at roughly double the rate, since the course lasts only half as long. Funds will not limit the output of these institutions.

The Government will also give high priority to the training of paramedical staff in view of the present under-staffed state of much of the health service. The new School of Hygiene will in due course add to the flow of health inspectors and public health nurses, while as regards availability of the higher levels of nurses, the Nursing Department of the University of Ghana is producing graduates with a Tutor's Diploma.

The Government also intends to revise the programme for in-service training, with increased liaison between the Ministry of Health and the Ministry of Education.

The Ghana Medical School will turn out its first batch of 40 graduates in June, 1969, and output will gradually be increased to 50 doctors a year. However, for some time, some doctors may still receive their training abroad under aid arrangements, and increased numbers will be sent abroad for specialised courses in psychiatry, dentistry and public health. Nurses will also continue to be sent abroad for certain specialised courses. The Government intends to strengthen the legal arrangements under which certain penalties are imposed if a trainee fails to return and enter the Government Health Service; at the same time, efforts will be made to render the prospect of return home more attractive; and here field bonuses, discussed below, may be of assistance.

In the field of mental health, a course is shortly to be instituted at Ankaful for the training of auxiliary mental nurses. There will also be a course for the combined 4-year SNR/RMN programme. It is also planned to establish an 18-month course for SRNs at Ankaful to specialise in psychiatric nursing. For the professional grade psychiatrists, the training problem is already acute because of the present extreme shortage of psychiatrists, the planned expansion of the mental health services, and the very long training period involved. Immediate steps will also be taken to increase the flow of doctors going for psychiatrist training.

In dental health, a similar need exists for training more dentists. However, the main effort will be to increase the numbers in the nurse and paramedical grades.

The Government recognises the need to strengthen the administration of the health services by placing administrative tasks in the hands of trained personnel, thus freeing doctors for medical work. The Government will also consider giving individual units within the health services more autonomy in staff matters.

Transport.—At present the health authorities are extremely short of transport, and this is a serious hindrance to the running of an efficient service—distribution of stores, supervision of rural outposts, transfer of patients, health campaigns and other community health work. Rural health activities, and health promotion and protection work, make especially large demands on transport facilities. To permit the expansion of these services in line with current policy, and to make up for natural wastage over the years when little vehicle replacement was done, the Government will increase the funds allocated for vehicles in the 1968-69 Development Budget.

Maintenance of Vehicles and Equipment.—Steps will be taken to ensure the regular flow of spare parts, and workshop facilities of all sorts are being improved. Transport Units are being set up at Accra, Tamale and Ankaful, to provide better maintenance facilities in the regions; work is continuing on the Medical Workshop at Korle Bu; a workshop

is being added to the Central Chemical Laboratory; and there will also be a new workshop at the Limb Fitting Centre in Accra.

Supplies.—The Government realises the extent to which supply difficulties have hindered the effective running of the health services. These difficulties have been caused by the problems of placing orders abroad, the lack of adequate storage facilities, the lack of transport for distribution of stores, and, at some levels, inadequate stock control. To cope with the first of these difficulties, the Government will reorganise the system of ordering from abroad. A reasonable allocation of foreign exchange will be made for medical supplies, wherever possible by the use of lines of credit under aid arrangements. The possibility of long-term purchasing contracts will be considered. As regards the lack of storage facilities, work will begin immediately on the rebuilding of the Central Medical Stores at Tema. Stores are also being built at the Central Chemical Laboratory, and during the Plan period work will begin on the improvement of store facilities at several hospitals, including Navrongo and Yendi. Stock control will be improved where necessary, as part of the general move to a more realistic approach to the administration of the health services.

General

In view of the need to obtain maximum benefit from scarce resources, the Government believes that it is not realistic to attempt to provide health services virtually free of charge. The Government has therefore decided to revise the scale of health charges.

If the revenue collected from charges remains with the health authorities, the justification for the charges is clear to patients and health staff alike. The charges are levied in order that the people can enjoy a better standard of health services than would otherwise be possible. Again, in determining the budget allocation of funds for the various sectors, it is the *net* expenditure on the health services which is the relevant figure. The Government has therefore decided to discontinue the practice of paying revenue from charges into central funds.

VIII—4. SOCIAL WELFARE AND COMMUNITY DEVELOPMENT

The Department of Social Welfare and Community Development provides the central machinery for the elimination of social problems arising in various sections of the community. Such a central machinery is needed because in the wide field of social welfare many independent and voluntary organizations seek to promote the social well-being of the population, with little co-ordination or co-operation. It is the function of the Government to guide, and where possible fill gaps left by voluntary organizations.

One area of operation (social welfare) is concerned with the solution of human problems inevitable in any society, such as rehabilitation of the handicapped and of juvenile delinquents, family reconciliation and care of the aged.

The other area of operation (community development), the Department's major role, is to guide and facilitate social transformation in a process of interaction with economic development.

During the Plan period efforts will be concentrated on strengthening the social services by improving the quality of existing services through more intensive and more efficient use of the Department's resources, including its manpower. Instead of embarking on new projects, the Department's energies will be focussed on completing the many small projects which have been interrupted by lack of funds during the period of stabilization.

Social Welfare

The welfare section consists of a number of services of which the most important are:

(i) *Child welfare and work among women.*—The activities in this field include (*a*) provision of day nurseries for children and (*b*) training courses for attendants and supervisors of day nurseries.

U.N.I.C.E.F. has recognised the usefulness of this service for the pre-school child and offered assistance. U.N.I.C.E.F. is also interested in the construction of a day nursery training school for attendants at Madina in Accra, the completion of which will require N₵34,000.

(ii) *Children's Homes.*—Some of the social changes occurring in Ghana necessitate the promotion of children's homes to take care of the child deprived of normal parental, or adequate care. The running and management of three children's homes in the country is the direct responsibility of the Department.

(iii) *Remand and probation homes.*—It is a statutory requirement that juveniles cases should be separated from adult delinquents cases. For this reason, remand and probation homes

are established to take care of juvenile delinquents. It is the intention to build Remand and Probation Homes at Ho and Sunyani during the Plan period.

(iv) *Rehabilitation of disabled persons.*—Since the inception of the rehabilitation programme, efforts have been made to register disabled people in order to find a solution to the problem. At the same time pilot projects in actual training and rehabilitation of the disabled have been undertaken in all parts of the country. To date over 31,000 disabled people have been registered and approximately 1,200 of various categories have been trained. Of this number nearly 1,000 persons are now self-supporting. Besides the humanitarian advantage of these activities, there is a clear economic advantage in allowing disabled persons to contribute to the economy. It is planned to intensify this programme for the next two years.

(v) *Casework services.*—This covers a number of services given by the Department to individuals such as:

(*a*) Probation and other Social Welfare services of the court (juvenile and adult);

(*b*) Treatment of juvenile delinquency in special delinquency institutions;

(*c*) After-care services for adults and juveniles after serving sentences either in prison or juvenile delinquency institutions;

(*d*) Hospital welfare services, including the welfare of the mentally ill;

(*e*) Maintenance of Children services under the Children's Maintenance Act;

(*f*) Family Reconciliation;

(*g*) Problems of destitution;

(*h*) Deportation and Repatriation cases.

Community Development Efforts

The changing structure of the society of the developed countries was a result of the industrialisation process. In the absence of social planning it was necessary to tackle the social problems, resulting from this development, in an effort to adjust the individual to the structural change in his society. The Government aims at structural change, rather than at personal adjustments to the resulting disruptions in existing patterns of social life. The existing patterns of communal life should be adapted to promote development with a minimum of social disruption. For these reasons, community development programmes will be closely related to programmes and activities of other Ministries and Departments.

The process of community development depends on the co-ordination of the efforts of the Government and the people. The programme is primarily directed towards the rural population, where the need for development and progress is greatest. It comprises four main activities:—

(i) Mass Literacy and Adult Education (including social and civic education);

(ii) Self-help Improvement Projects;

(iii) Work among women in Home Economics or Home practices;

(iv) Education campaigns or Extension Services for other Ministries, Departments and other agencies.

Apart from the self-help improvement projects, these activities fall under normal recurrent budget expenditures and will be progressively enlarged. Self-help projects fall under the development budget and are to be given much greater emphasis than in the recent past.

About 650 projects are now in progress at varying stages of construction. These will be completed during the Plan Feriod, the government's contribution to the total effort—which includes labour and finance from local sources—being estimated at N₵400,000. The projects include schools, post offices, drinking water supply systems, small irrigation schemes. They are distributed throughout the rural areas of the country.

IX—BEYOND 1970

The plan presented in this document is designed for the period of transition from stabilisation to more rapid development. It accordingly emphasises the improvement of the underlying structure of the economy in preparation for more dynamic growth in the future. In particular, the plan concentrates on removal of bottlenecks in industry, bringing the infrastructure of the country into better working condition, progressive improvement of the unemployment situation, rationalising the state enterprise sector, harnessing the potential of the private sector, consolidation of a healthy fiscal and balance of payments equilibrium and, more generally, the development of policies to stimulate future growth.

The emphasis on improvement of the planning and decision-making organisation is essentially forward-looking. In itself, improvement of organisation does not commit any future government to a specific line of policy. Rather the proposed changes are designed to provide the machinery to facilitate efficient formulation and implementation of such policies as are determined in future years. In view of the serious problems with which future governments will have to deal, and the uncertainties of such important factors as harvest conditions and world cocoa prices, the building up of an effective organisation for flexible planning and decision making is regarded as an integral part of the plan for the transition period.

The present plan has been hampered by lack of adequate information and analysis in many fields. It has accordingly presented only a broad approach in several sectors. The emphasis is on appropriate policies rather than statistical targets. During the transition period, however, the government will concentrate on improvement of the basic data and a deeper analysis of underlying problems so as to provide future governments with a firmer base from which to plan longer-term development. In particular, it is commissioning detailed studies of four sectors—agriculture, transport, telecommunications and water resources—which are to be completed before the end of the Plan period.

Over the Plan period, the rise which has occurred in world cocoa prices is expected to ease the underlying problems. It is essential, however, that this short-run improvement should not lead to complacency and mask the urgent need to tackle the basic problems facing the country. Even a cursory examination of the situation beyond 1970 indicates that the problems will continue to be severe.

The size of the country's foreign indebtedness constitutes a continuing threat to economic growth and makes long-term planning of development much more difficult. Even on reasonably optimistic assumptions of world demand for cocoa and other exports, the scarcity of foreign exchange after meeting debt servicing obligations is likely to remain a major constraint on development for many years to come. Policies further to promote exports, reduce unessential imports and to build up efficient local production in substitution for imports will surely continue to be necessary. At the same time, the assistance to production that can be made by new foreign private and public capital will have to be carefully weighed

against their help in expanding foreign exchange earnings or economising on imports, and the additional debt and profit remittances abroad involved.

Since the contribution of cocoa to the rise in total national income anticipated during the Plan period cannot be expected to continue at the same rate into the future, other sectors will have to be developed more rapidly if overall growth is to be maintained at adequate levels. Given the present structure of the economy, including the balance of payments situation, and the need for additional food to provide for a population growing in income as well as size, the conclusion appears inescapable that a major effort is imperative to accelerate the growth of agricultural production. Because agriculture is spread over a multitude of production units, a substantial time-lag between policies to stimulate agriculture and the full results of the policies is inevitable. It is the more urgent therefore to start quickly so that the cumulative effects will already be having their impact by the time the impetus from cocoa is diminishing.

It is not realistic to expect that the problems beyond the Plan period will be solved by a major increase of assistance from the industrialised countries. Not only are the problems too wide in scope, but also neither in the field of aid nor in the field of trade can the outlook for foreign assistance be described as promising. Basic solutions must be sought primarily from within the country's own human and material resources. The level of resources in Ghana is such that a progressive improvement of living standards is clearly possible if efforts are focussed on self-help, and if long-term development requirements are not allowed to be submerged by excessive short-term increases in consumption.

The level of savings remains inadequate to provide the resources for investment needed for self-sustained growth. While an improvement is foreseen during the Plan period, it will be necessary to increase savings further in the years beyond 1970. Private savings will need to be encouraged. There is, however, little doubt that the government will need to play a leading role by ensuring that public savings are increased both by careful allocation and pruning of expenditures and by a more revenue productive structure of taxation.

Development, however, depends not only on investments. Improved organisation and techniques are equally essential. For some time to come, the country will have to rely on the import of management and technical skills even though these are costly and not without other problems. It is evident that attention must continue to be directed towards ensuring that local talent is adequately trained, including imaginative use of the government's industrial facilities. It is no less evident that research into the adaptation of techniques to local conditions, particularly in agriculture, must be further expanded.

The acceleration of the development process, social as well as economic, can be placed on a firm foundation only if ways and means are found to involve the unemployed and under-employed in useful economic activities. The fact that unemployment is a serious problem in most developing countries indicates that solutions are by no means easy and

are of a long-term rather than short-term nature. Production techniques taken over from the industrialised countries do not reflect the balance between capital and labour availabilities in the developing countries. Careful appraisal of development policies with this problem in mind will continue to be necessary not only to speed up economic growth but also because of the remedial effect which a solution of the unemployment problem would have on income distribution.

International aspects of development will in the years beyond the Plan period assume greater importance. Ghana is too small, its resources and markets too limited, the barriers to penetration of the markets of industrialised countries for many goods too severe, for the country to realise its full development potential without co-operation with other developing countries. In particular, more co-operation with other countries of the West African region to pool resources and expand markets appears necessary. Where possible, promotion of new industries should take place in consultation with neighbouring countries to ensure the markets necessary to operate on a competitive scale.

In the first half of the sixties, the standard of living of the people of Ghana did not improve, and for many it deteriorated. From 1966, progress has been resumed and a further improvement is expected during the Plan period. Moreover, the foundations will have been laid for an accelerated betterment of living standards beyond 1970. This will, however, only be achieved on a lasting basis if the country's effort are directed towards using its own resources to the best advantage and, in particular, towards restraining the growth of consumption in order to provide savings for a soundly planned development of the country's production potential.

APPENDIX I

SELECTED LIST OF CONTINUING PROJECTS AND PROGRAMMES—FISCAL YEAR 1968–69

Agriculture

The main development programmes to be financed by the 1968–69 Budget are as follows:—

	N¢ '000
1. Cocoa rehabilitation and pest control	1,208
2. Completion of rice and palm-oil mills	406
3. State Farms	793
4. Mechanisation programme: plant rehabilitation and replacement	1,166
5. Minor irrigation schemes	2,556
6. Distribution of fertilizers, seeds, and planting materials	879
7. Livestock development and animal health	309
8. Extension programmes	437
9. Fish ponds	37
10. Training and Manpower schemes	186

An important continuing programme sponsored by the Ministry is the Hire-Purchase Scheme of the State Boatyard Corporation to promote the wider use of inshore motor fishing vessels (M.F.V.). This scheme is designed to achieve an investment in motor fishing vessels from the private sector of over N¢750,000 per annum. Sufficient funds have been voted to the Agricultural Development Bank to support it.

The Ministry has at present no new major project ready to start. However, an amount of N¢2 million has been earmarked for new agricultural projects in the allocation of the Ministry of Economic Affairs, and will be released as required for justifiable investments. For details of projects under preparation, *see* Appendix II.

Settlement Schemes.—The investment expenditure envisaged in 1968–69 under the Volta River Authority resettlement programme is N¢2.1 million. A settlement scheme involving several locations is also being implemented by the Ministry of Agriculture. The amount of N¢496,000 has been allocated for this scheme in the 1968–69 Budget.

Forestry.—Continuing programmes of the Ministry for the improvement and development of forest resources call for an expenditure of N¢196,000 in 1968–69.

Lands and Minerals.—N¢1.9 million has been allocated in 1968–69 to the State Gold Mining Corporation. This sum represents the third instalment of a Government grant totalling N¢7.2 million for rehabilitation and development.

Transport and Communications

The main continuing development programmes included in the 1968–69 Budget in these sectors are as follows:—

	N¢ '000
1. P. and T. telecommunication improvement programme	3,836
2. P.W.D.: trunk roads maintenance and improvement programme	4,761
3. Maintenance of feeder roads and V.R.A. roads	600
4. Maintenance of town roads	271

Work will continue on some main road projects, for which the following allocations have been made:—

	N¢'000
1. Kumasi–Bibiani	376
2. Abofour–Techiman–Jema–Kintampo–Soronuasi	376
3. Pong–Yeji and Yeji–Tamale	480
4. Ho–Denu	1,200
5. Korle and Klottey lagoons drainage	808
6. Coastal protection: Poasi Road, Sekondi	430

Additional investment in continuing feeder roads improvement schemes will also be financed by the Regional Organizations in 1968–69: the amount allocated for this purpose totals N¢513,000.

For details of new projects and those under preparation, *see* Appendix II.

Works and Housing

The main programmes to be undertaken by the Ministry of Works and Housing in the 1968–69 fiscal year are as follows:—

	N¢ '000
Water and Sewerage Corporation of Ghana	8,950
Ghana Housing Corporation	3,142
Tema Development Corporation	3,494

A large portion of the allocations for water supply schemes is to be invested in rural areas. The main programmes sanctioned in 1968–69 for the Water and Sewerage Corporation of Ghana in this field are as follows:—

	1968–69 (N¢ '000)
1. Well sinking programme	383
2. Borehole supply programme	2,183
3. Expansion of surface water supply schemes in rural areas	2,239
4. Swedru and district	449
5. Construction of rural water tanks	600

For details of new projects under preparation, *see* Appendix II.

Education

Investment programmes to be carried on by the Education Ministry during the fiscal year 1968–69 can be summarised as follows:—

	N¢ '000
1. Primary Schools	384
2. Secondary Schools	1,652
3. Teacher Training Colleges	889
4. University of Ghana	1,214
5. University of Science and Technology, Kumasi	858
6. University College of Cape Coast	2,113
7. Medical School	403
8. Academy of Sciences	1,704
9. Technical Education	1,204

Health

Health campaigns have been allocated a total of N¢141,000 in the Development Budget and the construction of new Health Posts N¢200,000. N¢363,000 has been allocated for the purchase of vehicles (including specialised vans). The allocation for hospital extensions Sekondi, Koforidua, Sunyani, Cape Coast, etc.) is about N¢900,000. For details of new projects, *see* Appendix II.

Social Services and Labour Intensive Projects

Two continuing projects in this sector may be noted:

	N¢ '000
1. Completion of 650 self-help projects	200[1]
2. Labour intensive projects	500

Development Finance Institutions

The 1968–69 allocations for the National Investment Bank and the Agricultural Development Bank total about N¢3.5 million, of which N¢2.6 million is for the National Investment Bank and N¢0.9 million for the Agricultural Development Bank.

Regional Planning Committees

In accordance with the policy of decentralization, an amount of N¢2.0 million has been allocated to the newly established Regional Planning Committees as part of the allocation to the Ministry of Economic Affairs. This allocation will be spent on projects of regional or local significance.

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[1] This figure represents only the Government's contribution, which constitutes a small part of the total value of the works implemented under these schemes.

APPENDIX II

SELECTED LIST OF NEW PROJECTS AND PROJECTS UNDER PREPARATION[1]

Agriculture

1. *Palm-Oil Development.*—N₵146,000 has been allocated in the 1968–69 Development Budget for a project preparation survey of palm-oil development in Oda, Kade, Twifu-Prasu areas.

2. *Cocoa Rehabilitation.*—The Cocoa Division is preparing a project for the rehabilitation of cocoa plantings on a large scale. This project will increase by several times the present programme of the Ministry for cocoa rehabilitation and pest control.

3. *Cotton Development.*—Several pilot projects have been established in 1968 in various areas of the North, with a view to determining the feasibility of growing cotton on small private farms in the Northern and Upper Regions.

Transport and Communications

1. *City Buses.*—A project, the total cost of which is estimated at about N₵2.4 million is being prepared by the Omnibus Service Authority. It is designed to increase substantially the present fleet of city buses in the main towns, and to improve workshops and repair facilities.

2. *Public Works Department Plant and Equipment.*—A sum of N₵1.1 million has been allocated in the 1968/69 Budget to the Public Works Department for the purchase of new road building plant. This programme represents a first step towards the rehabilitation of Public Works Department to enable it to implement road maintenance programmes in an efficient manner.

New Road Construction

(*a*) *Soronuasi–Tamale.*—This project is designed to improve the conditions of the road connection between Kumasi and Tamale, and to provide a proper alternative via Kintampo to the Yeji Ferry route, where excessive delays are experienced. Traffic densities on the existing alignment appear to justify additional investments. Engineering studies are in progress and are expected to be completed within the fiscal year 1968–69. A preliminary cost estimate for the whole length is N₵9.0 million.

(*b*) *Feeder Roads.*—A 3-year feeder road reconstruction programme, covering 600 miles, has been approved. Additional funds may be provided as road building capacity increases.

(*c*) *Accra–Kumasi–Takoradi Road Realignment.*—A feasibility study for this project has been completed. Detailed engineering will be prepared during the next eighteen months. The total estimated cost of the project is N₵21 million for the Accra–Kumasi section and N₵15 million for the Dunkwa–Takoradi section.

[1] Only projects likely to involve a total public investment of over N₵1 million to completion are shown on this list.

(*d*) *Coastal Connection to Ivory Coast.*—A study is expected to be carried out during the Plan period with a view to establishing the feasibility of constructing a new road to Abidjan along the coast.

(*e*) *Road Connection between Volta Lake and Ouagadougou*—A study will be carried out during the Plan period to establish the economic feasibility of improving road facilities between Ghana and Upper Volta, and to assess its traffic growth potential.

(*f*) *Kumasi–Wenchi–Bamboi–Bole–Wa Road.*—A feasibility study has been commissioned to establish the cost and the economic viability of the reconstruction of this road.

(*g*) *Volta Lake Transport.*—A study of the traffic potential and the navigation and landing facilities needed on the Volta Lake will be carried out during the Plan period.

Railway

4. *Rehabilitation Project.*—This project is estimated to cost approximately N₵7–N₵7½ million in foreign exchange of which N₵3 million will cover the cost of 10 diesel electric locomotives and 50 new 25-ton covered vans to be ordered shortly. In addition N₵3.2 million is required for the expansion of the railway signalling and telecommunication system. The balance is to cover the cost of several miles of tract realignment on the Dunkwa-Huni Valley section, and the cost of additional cranage and other equipment.

Ports

5. (*a*) *Improvement of Fishing Harbour Facilities in Tema.*—This project comprises the rehabilitation of the fish market and some additional shore and marine facilities.

(*b*) *Installation of Fishing Harbour Facilities in the Sekondi-Takoradi area.*—Two alternative solutions are being investigated. Engineering designs are to be initiated as soon as decision is taken as to the best feasible development of existing Harbours in the area for the use of the fishing fleet.

(*c*) *Dredging at Tema Commercial Harbour.*—This project is under review. It includes the deepening of the entrance channel to 42 feet, the dredging of the entrance of the dry dock and the bulk terminals and the improvement of draught at some of the general cargo berths.

Power

1. *Electricity Corporation of Ghana* (*E.C.G.*).—This project comprises the improvement and expansion of power distribution facilities; a total expenditure of about N₵25 million during the next three years is envisaged.

2. *Volta River Authority.*—(*a*) Installation of the 5th and 6th generating units at Akosombo; the total estimated cost of this project, designed to complete the generating capacity of the Akosombo Power House by adding 256 MW is N₵11 million.

(*b*) Togo–Dahomey transmission line: this project is estimated to cost N₵2.5 million. It is designed to supply the Togo and Dahomey electric grid through a 121 kV line from Akosombo to the Togo border.

Water Supply

1. *Accra-Tema Water and Sewerage (Phase I).*—This project is estimated to cost a total of N₵8.6 million. It comprises a first phase of implementation of the Accra Water and Sewerage Master Plan. Detailed engineering design work is in progress, and will be completed within the 1968–69 fiscal year.

2. *Akwapim Ridge; Kpone–Prampram–Ningo; Tefle–Sogakope–Ada; Swedru and District.*—Engineering studies have been commissioned to review previous reports prepared for these projects and to revise and update cost estimates.

Hospitals

1. *Accra Mental Hospital.*—This project, estimated to cost N₵2.4 million, is to be started in 1968.

2. *Tamale Regional Hospital.*—This project—with a capacity of 300 beds—is to be started in 1968. It is estimated to cost N₵4 million.

3. *Mampong-Ashanti.*—A new 100-bed hospital is to be built costing N₵1.4 million.

APPENDIX III

SELECTED LIST OF SURVEYS AND SECTOR STUDIES

1. *Marine Fisheries Survey.*—This survey was started in 1966. Work is progressing satisfactorily.

2. *Volta Lake Fisheries Survey.*—This survey was started in 1967. Work is progressing satisfactorily.

3. *Exploitation of secondary timber species.*—An amount of N₵100,000 has been earmarked in the 1968–69 budget to finance research activities aimed at promoting the industrial use of secondary wood species.

4. *Geological Survey mineral prospecting.*—Two projects have been designed to prospect for mineral resources. One covers a large area in the Western Region, and will concentrate on the identification of new manganese, gold and diamond deposits. The other includes several districts in the North and concentrates on water resources, industrial salts, phosphate and other minerals.

5. *Sector Studies.*—Four sector studies have been commissioned and will be carried out over a period of eighteen months, starting towards the end of 1968. The sectors to be covered are: Agriculture, Water Resources, Transport, and Telecommunications.

6. *Low cost Housing.*—This project of the University of Science and Technology, Kumasi, has already made substantial headway in the identification of techniques required to build low cost houses with a large component of indigenous materials.

APPENDIX IV

SELECTED LIST OF PROJECTS IN THE PRIVATE SECTOR

The private sector is called upon to perform a particularly important function in the industrial growth of the economy. The following list is a sample of projects in the private sector which is expected to be implemented during the Plan period.

Name of Firm	*Investment N¢ million*	*Purpose of Project*
*Nestles (Ghana) Ltd.	2.3	This project is designed to install capacity for the production of 1,200,000 cartons of evaporated milk per annum.
Woods Supply Ltd.	4.9	Installation of a sawmill with a capacity of 760,000 cubic meter per annum, and of equipment for the production of plywood, veneer and wood-board.
*Union Carbide	1.6	The Company will set up a factory for the production of dry batteries, flash-light cases, and other appliances.
*Kabelmetal Ltd.	1.0	This project is designed to produce electrical cables and wires.
Takoradi Brewery	2.2	New brewery with a capacity of 100,000 bottles per annum.
Ghana Rubber Products Co. ..	1.0	Expansion of existing plant manufacturing rubber foot-wear to include manufacture of bicycle tyres tubes.
*Associated Industries Limited ..	0.5	Expansion of capacity to manufacture cosmetics and pharmaceuticals.
Tema Thread Co.	1.2	This project is designed to produce cotton sewing thread and weaving yarn with an output of 1,000,000 lb. per annum.
British Ropes Ltd.	0.6	The Company intends to set up facilities for the manufacture of wire and fibre ropes.
Ghana Textile Printing Co. ..	4.0	This project is an expansion of existing printing, dyeing and finishing facilities by a capacity of 25 million yards per annum.
Ghana Textile Manufacturing Co. Ltd.	2.0	Expansion of existing spinning, weaving and finishing facilities to approximately double the present output.

*Projects for which National Investment Bank equity participation is presently envisaged.

Name of Firm	*Investment N¢ million*	*Purpose of Project*
•Saltpond Ceramics Ltd.	2.5	This project is designed to produce 1,500 tons of wall tiles and 600 tons of sanitary ware per annum.
•Ghana Asbestos Products . .	1.5	This project is designed for the manufacture of 22,000 tons of flat and corrugated asbestos products.
•Ghana Aluminium Processing Company	6.9	Aluminium rolling mill for the manufacture of 7,500 tons aluminium sheet and circles per annum.

•Projects for which National Investment Bank equity participation is presently envisaged.

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